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The Commonwealth of Massachusetts.

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AND THE
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COMMISSIONERS' REPORT.

PART I.

RAILROAD CORPORATIONS, STREET RAILWAY COMPANIES, TELEPHONE AND TELEGRAPH, STEAM-BOAT AND EXPRESS COMPANIES.

The Commonwealth of Massachusetts.

To the Honorable Senate and House of Representatives in General Court assembled.

We respectfully submit the first annual report of the Public Service Commission and the forty-fifth annual report of the Board of Railroad Commissioners : —

RAILROADS.

Annual returns for the year ending June 30, 1913, have been received from thirty-six railroad corporations. One return has been received from a canal company.

There was returned the past year a net decrease of .54 of a mile of railroad line located in this Commonwealth, caused by additions and remeasurements.

There were increases of 9.83 miles of second main track, and 32.14 miles of side track.

There are now in Massachusetts 2,110.50 miles of main and branch railroad line. The total length of railroad track within the Commonwealth including second, third and fourth main track and side track, is 4,892.77 miles.

STATISTICS.

Boston, January 1, 1914.

Public Service Commission.

GENTLEMEN:—I submit the following compilations of statistics from the returns of the several railroad companies to the Commission for the year ending June 30, 1913.

The 4.20 miles of road owned by the Hartford & Connecticut Western, located in this Commonwealth and operated by the Central New England, are not included in the following tables and statistics.

The following table gives the length of railroad line and track in this Commonwealth June 30, 1913, as compared with the previous year:—

Railroad Mileage in Massachusetts, 1912 and 1913.

RAILROAD MILEAGE.	1912.	1913.	Increase.
	Miles.	Miles.	Miles.
Length of main and branch lines, .	2,111.04	2,110.50	.54*
Length of second track, . . .	941.93	951.76	9.83
Length of third track, . . .	79.29	79.29	—
Length of fourth track, . . .	43.96	43.96	—
Length of side track, . . .	1,675.12	1,707.26	32.14
Total reckoned as single track, .	4,851.34	4,892.77	41.43

* Decrease.

Mileage Owned.

The total length of railroad line *owned* by the Massachusetts companies *in* and *out* of the Commonwealth is 3,993.54¹ miles; and the total length of railroad track so owned is 8,664.44³ miles. The miles of main and branch line, of second, third and fourth main track, and of side track, owned June 30, 1913, and the increase over the previous year, is stated in the following table: —

Mileage Owned by Massachusetts Companies, 1912 and 1913.

MILEAGE OWNED.	1912.	1913.	Increase.
	Miles.	Miles.	Miles.
Length of main and branch lines, .	3,983.96 ¹	3,993.54 ¹	9.58
Length of second track, . . .	1,539.66	1,565.83	26.17
Length of third track, . . .	172.34	172.34	—
Length of fourth track, . . .	110.01	110.01	—
Length of side track, . . .	2,764.10 ²	2,822.72 ²	58.62
Total reckoned as single track, .	8,570.07 ³	8,664.44 ³	94.37

¹ Includes 18.10 miles electric street railway.² Includes 1.14 miles electric street railway.³ Includes 19.24 miles electric street railway track.

Mileage Operated.

The length of railroad line *operated* by the Massachusetts companies, *within* and *without* the Commonwealth, including roads operated under lease or contract as well as roads owned, is 5,003.90⁴ miles; and the total length of track so operated is 10,405.43⁶ miles, — as shown in detail, with the increase for the year, in the next table: —

Mileage Operated by Massachusetts Companies, 1912 and 1913.

MILEAGE OPERATED.	1912.	1913.	Increase.
	Miles.	Miles.	Miles.
Length of main and branch lines, .	4,968.60 ¹	5,003.90 ⁴	35.30
Length of second track, . . .	1,676.46	1,724.94	48.48
Length of third track, . . .	219.62	220.41	.79
Length of fourth track, . . .	153.95	153.95	—
Length of fifth track, ...	8.90	9.68	.78
Length of sixth track, ...	8.90	9.64	.74
Length of side track, ...	3,206.00 ²	3,282.91 ⁵	76.91
Total reckoned as single track, .	10,242.43 ³	10,405.43 ⁶	163.00

¹ Includes 46.80 miles electric street railway.

² Includes 3.16 miles electric street railway.

³ Includes 49.96 miles electric street railway track.

⁴ Includes 50.21 miles electric street railway.

⁵ Includes 3.25 miles electric street railway.

⁶ Includes 53.46 miles electric street railway track.

COMPARATIVE GENERAL BALANCE SHEET.

In any examination for purposes of comparison between the report here following and reports prior to 1910, it must be distinctly understood that by reason of the adoption by the Commission, under authority of law, of the form of return prescribed by the Interstate Commerce Commission, the return now adopted differs substantially in principle from the return formerly in use under authority of the Commission. The assets and liabilities in the comparative general balance sheet of the companies, as returned June 30, 1913, have been tabulated and the increase or decrease in each class as compared with 1912 appear in the two following tables: —

Assets, June 30, 1912 and 1913.

ASSETS.	1912.	1913.	Increase.
Road and equipment, . . .	\$459,600,327	\$475,687,875	\$16,087,548
Securities owned, . . .	164,211,618	63,424,635	100,786,983*
Other investments, . . .	91,021,578	145,543,375	54,521,797
Working assets, . . .	95,274,743	135,485,371	40,210,628
Accrued income not due, . .	1,426,525	2,110,048	683,523
Deferred debit items, . . .	22,821,416	29,049,070	6,227,654
Profit and loss (balance), .	99,638	118,064	18,426
Grand total, . . .	\$834,455,845	\$851,418,438	\$16,962,593

* Decrease.

Liabilities, June 30, 1912 and 1913.

LIABILITIES.	1912.	1913.	Increase.
Capital stock, common, . .	\$303,829,016	\$305,001,716	\$1,172,700
Capital stock, preferred, .	25,009,800	25,009,800	—
Total capital stock, . . .	\$328,838,816	\$330,011,516	\$1,172,700
Funded debt, ...	327,282,300	326,183,450	1,098,850*
Obligations for advances for construction, ...	1,572,815	950,316	622,499*
Working liabilities, ...	71,727,052	101,201,861	29,474,809
Accrued liabilities not due, .	14,613,678	5,521,350	9,092,328*
Deferred credit items, . . .	13,809,992	22,959,227	9,149,235
Premium on capital stock, .	47,181,670	34,453,063	12,728,607*
Premium on bonds, ...	473,265	502,548	29,283
Sinking and reserve funds, .	2,128,038	7,945,784	5,817,746
Additions to property through income, ...	653,060	790,574	137,514
Profit and loss (balance), .	26,175,159	20,898,749	5,276,410*
Grand total, ...	\$834,455,845	\$851,418,438	\$16,962,593

* Decrease.

CAPITAL STOCK AND DIVIDENDS.

The aggregate capital stock June 30, 1913 (not including the premiums on sale of capital stock as returned in the form of return), of the thirty-two Massachusetts corporations was \$330,011,515.70, — a net increase of \$1,172,700.00 over the previous year, resulting from additions and a deduction as follows: —

Additions: —	
Boston & Lowell, ...	\$280,000 00
New York, New Haven & Hartford, ...	433,900 00
Old Colony, ...	630,000 00
Total additions to capital stock, ...	\$1,243,900 00
Deduction: —	
Southern New England, ...	171,200 00
Net increase to capital stock, ...	\$1,172,700 00

The total amount of dividends declared during the year was \$22,136,779.00, — a decrease of \$1,161,295.00 from the previous year.

Twenty-three of the thirty-two corporations declared dividends varying in rate from 2.25 to 14 per cent and nine paid no dividends. One company paid 14 per cent; three paid 10 per cent; two paid 9.50 per cent; one paid 8.75 per cent; four paid 8 per cent; one paid 7.50 per cent; four paid 7 per cent; two paid 6 per cent; three paid 5 per cent; one paid 3 per cent on common, and 6 per cent on preferred; and one paid 2.25 per cent.

The amount of capital stock of the twenty-three dividend-paying companies was \$326,574,515.70,¹ on which the average rate of dividend was 6.35 per cent.

The following table gives the total capital stock outstanding at the end of the year; the net income available for dividends (after paying all expenses, interest, taxes, rentals and other charges); the amount of dividends declared; and the average percentage of dividends to total capital stock, for each of the last ten years:—

¹ Including common stock on which, in the case of one of these companies, no dividend was paid.

Capital Stock, Net Income and Dividends, 1904-1913.

YEARS.	Capital Stock.	Net Divisible Income.	Dividends Declared.	Percentage to Total Capital Stock.
1904, . . .	\$237,423,886	\$14,821,360	\$14,985,816	6.35
1905, . . .	238,223,886	15,679,266	15,431,930	6.48
1906, . . .	242,033,936	16,348,523	15,551,107	6.43
1907, . . .	283,509,391	17,720,935	16,751,279	5.91
1908, . . .	235,462,291	11,602,252	17,683,965	7.51
1909, . . .	238,900,816	16,065,768	16,964,681	7.10
1910, . . .	285,100,341	20,162,394*	18,996,657	6.70
1911, . . .	324,445,166	17,335,645*	21,780,406	6.71
1912, . . .	328,838,816	21,997,307*	23,298,074	7.06
1913, . . .	330,011,516	16,044,299*	22,136,779	6.70

* Appropriations for additions, betterments and reserves deducted.

FUNDED DEBT.

The aggregate funded debt of the companies June 30, 1913 (not including "obligations for advances received for construction, equipment and betterments" as returned in the form of return), was \$326,183,450.00, — a decrease of \$1,098,850.00 from the previous year, resulting from additions and deductions as follows: —

Additions: —

Boston & Albany, ...	\$1,000,000 00
Boston & Lowell, ...	12,000 00
Fitchburg, ...	400,000 00

Total additions to funded debt, ...	\$1,412,000 00
---	----------------

Deductions: —

Boston & Maine, ...	\$511,000 00
Grafton & Upton, ...	250,000 00
Hoosac Tunnel & Wilmington, ...	2,000 00
New York, New Haven & Hartford, ...	1,747,850 00

Total deductions from funded debt, ...	\$2,510,850 00
--	----------------

Net decrease of funded debt, ...	\$1,098,850 00
--	----------------

INCOME AND EXPENDITURES.

The total income of the companies from all sources, for the year ending June 30, 1913, was \$160,087,992, and the total expenditures, including dividends declared, were \$166,180,472, —

showing a net deficit for the year of \$6,092,480 to be deducted from surplus account.

The sources of total income, and the amount derived from each source as compared with the previous year, were as follows:—

Total Income, 1912 and 1913.

INCOME.	1912.	1913.	Increase.
Total operating revenue, . . .	\$129,074,311	\$136,610,313	\$7,536,002
Net revenue from outside operations, ...	1,633,041	944,020	689,021*
Rents from lease of road, . . .	10,239,581	10,436,978	197,397
Other income, ...	11,858,276	12,096,681	238,405
Gross income, ...	\$152,805,209	\$160,087,992	\$7,282,783

* Decrease.

The items of the total expenditures for the year 1912 and also those for the year 1913, with the deficits for the years 1912 and 1913, and the increase or decrease in each item as compared with the previous year, are shown in the following table:—

Total Expenditures, 1912 and 1913.

EXPENDITURES.	1912.	1913.	Increase.
Operating expenses, ...	\$90,131,969	\$99,565,217	\$9,433,248
Taxes, ...	6,862,051	6,674,408	187,643*
Rents for lease of road, . . .	12,887,483	13,139,746	252,263
Hire of equipment, ...	2,114,947	3,138,916	1,023,969
Joint facilities and other rents,	2,585,916	2,801,055	215,139
Interest on funded and other debts, ...	15,646,723	16,735,174	1,088,451
Other deductions from income,	445,700	1,698,650	1,252,950
Dividends declared, ...	23,298,074 ¹	22,136,779 ²	1,161,295*
Appropriations for additions, betterments and reserves, .	133,113	290,527	157,414
Gross expenditures, ...	\$154,105,976	\$166,180,472	\$12,074,496
Surplus for the year, ...	1,300,767 ^d	6,092,480 ^d	4,791,713

¹ Includes \$1,767,951 charged direct to surplus.

² Includes \$1,374,138 charged direct to surplus.

^d Deficit.

* Decrease.

OPERATING REVENUES AND EXPENSES.

The operating revenues and expenses of operation for the past year are classified, and compared with those of the previous year, in the following table: —

Operating Revenues and Expenses, 1912 and 1913.

REVENUES AND EXPENSES.	1912.	1913.	Increase.
Freight revenue, ...	\$68,266,492	\$72,867,194	\$4,600,702
Passenger revenue, ...	\$49,613,283	\$51,434,069	\$1,820,786
Excess baggage revenue, . .	303,681	304,988	1,307
Mail revenue, ...	1,487,086	1,497,610	10,524
Express revenue, ...	4,831,743	5,126,499	294,756
Milk revenue, ...	497,689	562,799	65,110
Other passenger train revenue, .	408,670	627,700	219,030
Total passenger service train revenue, ...	\$57,142,152	\$59,553,665	\$2,411,513
Switching and miscellaneous revenue, ...	1,034,163	1,191,220	157,057
Total revenue from transportation, ...	\$126,442,807	\$133,612,079	\$7,169,272
Revenue from operations other than transportation, . .	2,160,985	2,420,655	259,670
Joint facilities revenue, . .	470,519	577,579	107,060
Total operating revenues, .	\$129,074,311	\$136,610,313	\$7,536,002
Operating expenses, ...	90,131,969	99,565,217	9,433,248
Net operating revenue, .	\$38,942,342	\$37,045,096	\$1,897,246*

* Decrease.

The next table shows the revenue from passenger service and freight service respectively, the other revenue from operation, and the total operating revenues on all of the roads for each of the past ten years: —

Total Revenue from Operation for Ten Years, 1904-1913.

YEARS.	Revenue from Passenger Service.	Revenue from Freight Service.	Other Revenue from Operation.	Total Operating Revenues.
1904, . . .	\$43,248,333	\$51,000,810	\$1,031,205	\$95,280,348
1905, . . .	44,351,142	53,439,440	1,108,643	98,899,225
1906, . . .	46,862,016	57,907,011	1,185,425	105,954,452
1907, . . .	49,029,986	61,226,631	1,177,322	111,433,939
1908, . . .	49,038,322	55,687,041	1,584,123	106,309,486
1909, . . .	48,458,423	56,945,111	2,702,238	108,105,772
1910, . . .	52,995,871	64,070,157	3,074,965	120,140,993
1911, . . .	55,602,106	65,038,750	3,318,634	123,959,490
1912, . . .	57,142,152	68,266,492	3,665,667	129,074,311
1913, . . .	59,553,665	72,867,194	4,189,454	136,610,313

Ratio of Operating Expenses to Operating Revenues.

The following table gives in like manner the total operating revenues, the operating expenses; the ratio of operating expenses to total operating revenues, and the net revenue from operation for all the companies for ten years: —

Ratio of Operating Expenses to Total Operating Revenues, 1904-1913.

YEARS.	Total Operating Revenues.	Operating Ex- penses.	Percentage of Expenses to Revenues.	Net Revenue from Operation.
1904, . . .	\$95,280,348	\$69,145,285	72.57	\$26,135,063
1905, . . .	98,899,225	71,393,485	72.19	27,505,740
1906, . . .	105,954,452	73,885,985	69.73	32,068,467
1907, . . .	111,433,938	80,912,538	72.61	30,521,400
1908, . . .	106,309,486	80,956,652	76.15	25,352,834
1909, . . .	108,105,772	75,048,921	69.42	33,056,851
1910, . . .	120,140,993	82,067,516	68.31	38,073,477
1911, . . .	123,959,490	89,525,902	72.22	34,433,588
1912, . . .	129,074,311	90,131,969	69.83	38,942,342
1913, . . .	136,610,313	99,565,217	72.88	37,045,096

INCOME AND EXPENDITURES OF THE THREE LEADING RAILROADS IN THE COMMONWEALTH.

The seven following tables show in detail the revenues, income and expenditures of the three leading railroads of the Commonwealth as returned for the year ending June 30, 1913.

Revenue from Transportation.

RAILROAD COMPANIES.	Revenue from Passenger Train Service.	Revenue from Freight Train Service.	Revenue from Switching and Miscel- laneous Service.	Total Revenue from Transportation.
Boston & Albany,* . .	\$7,396,341	\$8,994,102	\$295,514	\$16,685,957
Boston & Maine, . .	18,467,245	28,692,689	541,437	47,701,371
N. Y., N. H. & Hartford,	32,333,388	34,071,975	339,777	66,745,140

* Operations of the New York Central & Hudson River, lessee.

Total Operating Revenues.

RAILROAD COMPANIES.	Total Revenue from Transportation.	Revenue from Operations other than Trans- portation.	Revenue from Joint Facilities.	Total Operating Revenues.
Boston & Albany, . .	\$16,685,957	\$214,517	\$56,893	\$16,957,367
Boston & Maine,* . .	47,701,371	807,262	4,874	48,513,507
N. Y., N. H. & Hartford,	66,745,140	1,352,550	515,813	68,613,503

Total Income.

RAILROAD COMPANIES.	Total Operating Revenues.	Net Revenue from Outside Operations.	Other Income.	Total Income.
Boston & Albany, . .	\$16,957,367	\$110,660	\$385,652	\$17,453,679
Boston & Maine, . .	48,513,507	187,914	1,399,031	50,100,452
N. Y., N. H. & Hartford,	68,613,503	645,447	10,063,785	79,322,735

Gross Corporate Income.

RAILROAD COMPANIES.	Operating Expenses.	Per Cent Operating Expenses to Operating Revenues.	Taxes.	Gross Corporate Income.
Boston & Albany, . . .	\$12,106,663	71.39	\$842,526	\$4,504,490
Boston & Maine, . . .	38,101,425	78.54	2,025,629	9,973,398
N. Y., N. H. & Hartford,	47,227,339	68.83	3,714,756	28,380,640

Deductions from Gross Corporate Income.

RAILROAD COMPANIES.	Rents for Lease of Road.	Hire of Equipment.	Joint Facilities and Other Rents.	Interest on Funded Debt.
Boston & Albany, . . .	\$2,999,300	\$1,345,841	\$208,394	—
Boston & Maine, . . .	5,312,700	1,748,315	169,038	\$1,765,200
N. Y., N. H. & Hartford,	4,545,794	—	2,391,143	9,018,130

Total Deductions and Net Corporate Income.

RAILROAD COMPANIES.	Interest on Other Debts.	Other Deductions.	Total Deductions from Gross Corporate Income.	Net Corporate Income.
Boston & Albany, . . .	\$3,149	\$50,225	\$4,606,909	\$102,419 ^d
Boston & Maine, . . .	782,111	74,750	9,852,114	121,284
N. Y., N. H. & Hartford,	2,010,999	1,492,336	19,458,402	8,922,238

^d Net corporate loss.*Disposition of Net Corporate Income.*

RAILROAD COMPANIES.	Dividends Declared.	Per Cent to Capital Stock.	Appropriations for Additions, Betterments and Reserves.	Surplus for the Year.
Boston & Albany, . . .	—	—	—	\$102,419 ^d
Boston & Maine, . . .	— ¹	— ²	\$71,587	49,697
N. Y., N. H. & Hartford,	\$13,486,563	7.5 ³	—	4,564,325 ^d

¹ Dividends were paid and charged to surplus.² Three per cent on common, and six per cent on preferred capital stock.³ On varying amounts of capital stock.^d Deficit.

The miles of track owned, and also track operated June 30, 1913, of the three leading railroads of the Commonwealth, are stated in detail in the two following tables:—

Miles Owned June 30, 1913.

RAILROAD COMPANIES.	Main Line and Branches.	Second Track.	Third and Fourth Track.	Side Track.	Total Track Owned.
Boston & Albany, . . .	303.81	218.92	102.17	362.60	987.50
Boston & Maine, . . .	725.43	235.43	2.56	411.62	1,375.04
N. Y., N. H. & Hartford,	1,238.67	475.13	124.12	845.89	2,683.81

Miles Operated June 30, 1913.

RAILROAD COMPANIES.	Main Line and Branches.	Second Track.	Third, Fourth, Fifth and Sixth Track.	Side Track.	Total Track Operated.
Boston & Albany,* . . .	392.86	218.92	102.17	394.98	1,108.93
Boston & Maine, . . .	2,301.90	590.62	10.41	1,343.43	4,246.36
N. Y., N. H. & Hartford,	2,112.55	901.37	281.10	1,493.00	4,788.02

* Operated by the New York Central & Hudson River, lessee.

Revenues and Expenses per Mile of Road Operated.

The average operating revenues and expenses of operation, and the net operating revenue, per mile of road operated by the three leading companies for the last year, and by all of the companies for the past ten years, are shown in the following tables:—

Operating Revenues and Expenses per Mile of Road Operated (Three Roads) in 1913.

RAILROAD COMPANIES.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.
Boston & Albany, . . .	\$43,164	\$30,816	\$12,347
Boston & Maine, . . .	21,545	16,921	4,624
N. Y., N. H. & Hartford, .	32,479	22,356	10,123

Revenues and Expenses per Mile of Road Operated, 1904-1913.

YEARS.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.	YEARS.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.
1904, .	\$19,304	\$14,009	\$5,295	1909, .	\$21,979	\$15,258	\$6,721
1905, .	19,931	14,388	5,543	1910, .	24,668	16,850	7,818
1906, .	21,483	14,981	6,502	1911, .	25,207	18,205	7,002
1907, .	22,623	16,427	6,196	1912, .	25,978	18,140	7,838
1908, .	21,602	16,450	5,152	1913, .	27,301	19,897	7,403

Operating Revenues and Expenses per Revenue-Train Mile.

The average operating revenues and expenses of operation, and the net operating revenue, per total mile run by trains earning revenue, on all the roads, for each of the last ten years, are stated in the following table: —

Operating Revenues and Expenses per Total Revenue-Train Mile 1904-1913.

YEARS.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.	YEARS.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.
1904, .	\$1.864	\$1.352	\$0.512	1909, .	\$2.112	\$1.466	\$0.646
1905, .	1.936	1.398	.538	1910, .	2.235	1.527	.708
1906, .	2.020	1.408	.612	1911, .	2.246	1.622	.624
1907, .	2.024	1.470	.554	1912, .	2.338	1.633	.705
1908, .	2.002	1.525	.477	1913, .	2.400	1.749	.650

Operating Revenues and Expenses per Revenue-Train Mile (Three Roads) in 1913.

RAILROAD COMPANIES.	Gross Passenger Revenue per Passenger- Train Mile.	Gross Freight Revenue per Freight- Train Mile.	PER TOTAL REVENUE-TRAIN MILE.		
			Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.
Boston & Albany, .	\$1.722	\$2.451	\$2.128	\$1.519	\$0.609
Boston & Maine, . .	1.505	3.094	2.241	1.760	.481
N. Y., N. H. & Hartford,	1.924	3.935	2.688	1.850	.838

The average gross passenger revenue per passenger-train mile and the gross freight revenue per freight-train mile, and the total operating revenues, expenses and net operating revenue per total revenue-train mile of the three leading railroads of the Commonwealth are given for the last year in the preceding table.

The *expenses* of operation per passenger-train mile and per freight-train mile, respectively, cannot be stated, because the operating expenses of the passenger service department are not kept by the companies separately from those of the freight service department.

VOLUME OF TRAFFIC.

Train Mileage.

The total number of miles run by passenger trains (including in the passenger train mileage one-quarter of the mixed train mileage) the last year, on the roads of all the companies, was 34,937,736 — an increase of 719,550 miles over the previous year; by freight trains (including three-quarters of the mixed train mileage), 21,991,590 — an increase of 919,316 miles; and by all other trains 17,299,089 — an increase of 1,224,731 miles, making the total number of miles run by trains of all kinds, 74,228,415 — an increase of 2,863,597 miles over the previous year.

The mileage of passenger, freight and other trains, for each of the last ten years, is stated in the following table: —

Train Mileage for Ten Years, 1904-1913.

YEARS.	MILES RUN BY			Total Train Mileage.
	Passenger Trains.	Freight Trains.	Other Trains.	
1904, . . .	31,876,672	19,250,202	17,874,984	69,001,858
1905, . . .	31,560,016	19,518,636	16,565,460	67,644,112
1906, . . .	31,930,025	20,531,721	16,924,573	69,386,319
1907, . . .	33,404,569	21,638,150	18,847,553	73,890,272
1908, . . .	33,400,165	19,699,958	15,229,487	68,329,610
1909, . . .	32,187,441	19,002,145	14,740,906	65,930,492
1910, . . .	33,560,823	20,190,394	15,808,123	69,559,340
1911, . . .	34,522,583	20,674,982	16,243,465	71,441,030
1912, . . .	34,218,186	21,072,274	16,074,358	71,364,818
1913, . . .	34,937,736	21,991,590	17,299,089	74,228,415

The next table shows the revenue train mileage on each of the three leading railroads of the Commonwealth for the last year: —

Revenue Train Mileage (Three Roads) in 1913.

RAILROAD COMPANIES.	MILES RUN BY			Total Revenue Train Mileage.
	Passenger Trains.	Freight Trains.	Mixed and Special Trains.	
Boston & Albany, . .	4,285,387	3,637,546	45,096	7,968,029
Boston & Maine, . .	12,211,748	9,098,716	335,401	21,645,865
N. Y., N. H. & Hartford,	16,753,623	8,515,809	253,632	25,523,064

Passenger Traffic.

The total number of passengers carried the last year was 170,278,768 — an increase of 4,272,514 passengers over the previous year. Each passenger on the steam roads travelled on the average a distance of 17.39 miles, making the total passenger mileage 2,961,169,563, an increase of 89,220,312 over the previous year.

The total volume of passenger traffic for each of the last ten years is shown in the following table: —

Passenger Mileage for Ten Years, 1904-1913.

YEARS.	Passengers Carried.	Average Journey (Miles).	Total Passenger Mileage.	Average Passenger Mileage per Train Mile.
1904, ...	124,483,665 ¹	17.49 ²	2,133,524,260 ²	67 ²
1905, ...	127,439,566 ³	17.75 ²	2,205,586,782 ²	70 ²
1906, ...	137,834,000 ⁴	17.41 ²	2,342,560,774 ²	73 ²
1907, ...	146,821,836 ⁵	17.49 ²	2,505,631,328 ²	75 ²
1908, ...	144,844,546	17.58	2,546,160,478	76
1909, ...	147,051,164	17.39	2,556,994,990	79
1910, ...	160,769,201	17.23	2,771,121,457	83
1911, ...	162,940,242	17.24	2,808,985,698	81
1912, ...	166,006,254	17.30	2,871,949,251	84
1913, ...	170,278,768	17.39	2,961,169,563	85

¹ Includes 2,567,868 on electric street railways.

² Not including electric street railways.

³ Includes 3,305,399 on electric street railways.

⁴ Includes 3,249,179 on electric street railways.

⁵ Includes 3,569,160 on electric street railways.

The passenger mileage on the three leading railroads during the last year was as follows: —

Passenger Mileage (Three Roads) in 1913.

RAILROAD COMPANIES.	Passengers Carried.	Average Journey (Miles).	Total Passenger Mileage.	Average Passenger Mileage per Passenger-Train Mile.
Boston & Albany, . . .	12,165,487	27.95	340,022,611	79
Boston & Maine, . . .	49,918,103	18.11	904,059,166	74
N. Y., N. H. & Hartford,	86,813,807	18.50	1,605,902,772	96

Freight Traffic.

The total number of tons of freight hauled on all the roads the last year was 63,729,052 — an increase of 4,440,705 tons over the previous year. Each ton of freight was hauled on the average a distance of 101.09 miles, making the total freight mileage, 6,442,-438,763 — an increase of 598,505,034 tons hauled one mile, over the previous year.

Freight Mileage for Ten Years, 1904-1913.

YEARS.	Tons of Freight Hauled.	Average Haul (Miles).	Total Freight Mileage.	Average Freight Mileage per Freight-Train Mile.
1904, ...	43,727,514	90.22	3,945,026,293	205
1905, ...	45,874,649	92.31	4,234,491,283	217
1906, ...	50,464,667	91.43	4,613,873,938	225
1907, ...	53,806,796	93.58	5,035,305,109	233
1908, ...	47,251,469	99.25	4,689,724,439	238
1909, ...	49,259,397	97.51	4,803,498,797	253
1910, ...	55,786,434	97.41	5,433,908,081	273
1911, ...	56,557,644	97.85	5,534,064,740	268
1912, ...	59,288,347	98.57	5,843,933,729	277
1913, ...	63,729,052	101.09	6,442,438,763	293

The preceding table gives the total volume of freight traffic for each of the last ten years.

The next table gives the freight mileage on the three leading roads for the last year: —

Freight Mileage (Three Roads) in 1913.

RAILROAD COMPANIES.	Tons of Freight Hauled.	Average Haul (Miles).	Total Freight Mileage.	Average Freight Mileage per Freight-Train Mile.
Boston & Albany, .	9,631,093	116.05	1,117,738,753	305
Boston & Maine, .	25,473,568	106.82	2,721,196,610	293
N. Y., N. H. & H., .	26,266,327	96.43	2,532,746,840	293

FARES AND FREIGHTS.

Passenger Fares.

The average passenger fare per mile on the Massachusetts railroads for each of the last thirty years, as ascertained from the annual returns to the commission, is given in the following table: —

Average Passenger Fare per Mile (All Massachusetts Roads) for 30 Years, 1884–1913.

YEARS.	Fares.	YEARS.	Fares.	YEARS.	Fares.
	Cents.		Cents.		Cents.
1884, . .	1.92	1894, . .	1.80	1904, . .	1.72
1885, . .	1.88	1895, . .	1.78	1905, . .	1.70
1886, . .	1.88	1896, . .	1.79	1906, . .	1.70
1887, . .	1.85	1897, . .	1.80	1907, . .	1.65
1888, . .	1.90	1898, . .	1.78	1908, . .	1.63
1889, . .	1.87	1899, . .	1.77	1909, . .	1.64
1890, . .	1.82	1900, . .	1.75	1910, . .	1.65
1891, . .	1.83	1901, . .	1.75	1911, . .	1.72
1892, . .	1.83	1902, . .	1.73	1912, . .	1.73
1893, . .	1.83	1903, . .	1.73	1913, . .	1.74

The following table gives the average passenger fares per mile on the *five* leading Massachusetts railroads, taken singly and as a group, for the years 1870, 1880 and 1890, and for each of the last three years, 1911 to 1913 inclusive: —

Average Passenger Fare per Mile (Five Roads) in 1870, 1880, 1890 and 1911-1913.

RAILROAD COMPANIES.	1870.	1880.	1890.	1911.	1912.	1913.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Boston & Albany, . . .	2.78	2.09	1.86	1.77	1.79	1.82
Boston & Maine, . . .	2.14	2.14	1.83	1.80	1.78	1.78
Fitchburg, ...	2.56	1.88	1.91	—	—	—
New England, ...	—	2.12	1.96	—	—	—
N. Y., N. H. & Hartford, . . .	2.38	1.92	1.73	1.71	1.72	1.74
All companies, . . .	2.40	2.01	1.81	1.74	1.75	1.76

Freight Rates.

In the tables which follow, the average rates per ton mile for the transportation of merchandise on the railroads making returns to the Commission are shown for the same years and intervals of years, for all of the roads and for the same group of roads, as in the preceding tables of passenger fares.

The first table gives the average freight rate per ton mile on all of the roads for each of the last thirty years:—

Average Freight Rate per Ton Mile (All Massachusetts Roads) for 30 Years, 1884-1913.

YEARS.	Rates.	YEARS.	Rates.	YEARS.	Rates.
	Cents.		Cents.		Cents.
1884, . . .	1.64	1894, . . .	1.33	1904, . . .	1.27
1885, . . .	1.59	1895, . . .	1.28	1905, . . .	1.14
1886, . . .	1.64	1896, . . .	1.28	1906, . . .	1.23
1887, . . .	1.62	1897, . . .	1.25	1907, . . .	1.19
1888, . . .	1.55	1898, . . .	1.22	1908, . . .	1.17
1889, . . .	1.50	1899, . . .	1.18	1909, . . .	1.19
1890, . . .	1.45	1900, . . .	1.22	1910, . . .	1.18
1891, . . .	1.42	1901, . . .	1.20	1911, . . .	1.17
1892, . . .	1.36	1902, . . .	1.24	1912, . . .	1.17
1893, . . .	1.39	1903, . . .	1.23	1913, . . .	1.13

The following table shows the average rate per ton mile on the *five* leading railroads of the Commonwealth, taken singly and as a group, in 1870, 1880 and 1890, and for each of the last three years, 1911 to 1913 inclusive:—

Average Freight Rate per Ton Mile (Five Roads) in 1870, 1880, 1890 and 1911–1913.

RAILROAD COMPANIES.	1870.	1880.	1890.	1911.	1912.	1913.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Boston & Albany, . . .	2.19	1.21	1.11	0.85	0.85	0.80
Boston & Maine, . . .	4.45	2.56	1.76	1.09	1.09	1.05
Fitchburg, . . .	4.81	1.37	0.99	—	—	—
New England, . . .	—	2.86	1.22	—	—	—
N. Y., N. H. & Hartford, .	4.09	2.41	2.07	1.39	1.37	1.35
All companies, . . .	2.95	1.65	1.44	1.17	1.16	1.13

The next table gives the cost of repairs per locomotive and per car on each of the same three roads the last year:—

Cost of Repairs per Locomotive and per Car (Three Roads) in 1913.¹

RAILROAD COMPANIES.	Per Locomotive.	Per Passenger Car. ²	Per Freight Car.
Boston & Albany, . . .	\$2,570 72	\$643 09	\$51 98
Boston & Maine, . . .	2,289 38	434 00	104 35
N. Y., N. H. & Hartford, . . .	2,376 67	573 85	69 68

¹ Not including "replacement reserves."

² Including baggage, express and postal cars.

ROLLING STOCK.

The following table shows the amount of rolling stock (owned and leased) of all the companies, as returned at the end of each of the last seven years:—

Schedule of Rolling Stock, 1907-1913.

ROLLING STOCK.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Locomotives, . . .	2,604	2,742	2,728	2,749	2,879	2,830	3,020
Passenger cars, . . .	3,751	3,961	4,031	4,126	4,249	4,449	4,172
Baggage, express and postal cars, . . .	695	739	749	770	763	805	789
Freight cars, . . .	43,586	56,967	62,011	63,382	67,084	66,134	67,604
Gravel cars, etc., . . .	2,410	2,433	2,673	3,101	3,218	3,049	3,213

NUMBER OF EMPLOYEES.

The average number of persons employed during the last year by all the railroad companies making returns to the Commission was 73,661 — an increase of 2,799 over the previous year. The following table gives the average number of employees for each of the last ten years: —

Average Number of Employees, 1904-1913.

YEARS.	Number of Employees.	YEARS.	Number of Employees.
1904, ...	60,156	1909, ...	64,725
1905, ...	61,564	1910, ...	69,798
1906, ...	63,575	1911, ...	70,719
1907, ...	68,370	1912, ...	70,862
1908, ...	67,435	1913, ...	73,661

Respectfully submitted,

J. W. LESTER,

Chief Accountant.

SUMMARY OF RAILROAD ACCIDENTS.

The number of persons killed and injured on railroads in Massachusetts during the year ending June 30, 1913, as reported by the several companies, together with the number reported in each of the preceding ten years, is shown by the following table: —

• *Number of Persons Killed and Injured on Railroads in Massachusetts, 1903-1913.*

YEAR ENDING JUNE ³⁰ .	PASSENGERS.		EMPLOYEES.		TRAVELERS ON HIGHWAY AT GRADES CROSSINGS. ¹		TEMPERARIES.		OTHER.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1903,	7	49	95	466	33	19	128	44	-	-	263	578
1904,	4	70	87	417	31	29	139	75	7	7	264	598
1905,	6	49	80	438	25	14	142	61	11	15	264	577
1906,	22	126	64	437	28	32	126	77	11	8	251	680
1907,	8	87	96	716	22	23	158	61	16	19	300	906
1908,	11	50	92	633	27	30	146	75	15	21	291	809
1909,	11	123	74	367	22	13	131	64	12	12	250	579
1910,	9	65	89	210	29	9	164	50	12	15	303	349
1911,	11	52	87	181	25	29	162	48	18	21	303	331
1912,	15	103	91	144	24	19	132	60	17	14	279	340
Total,	104	774	855	4,009	266	217	1,428	615	115	132	2,768	5,747
Average,	10	77	86	401	26	22	143	62	12	13	277	575
1913,	14	167	97	205	23	19	175	71	10	20	319	482
												801

¹ Includes persons killed and injured while crossing tracks at stations in 1903.

NOTE.—The decrease in the number of employees injured during the past five fiscal years, with the consequent decrease shown in the total number of persons injured, may be accounted for by the elimination of reports of minor and trivial accidents previously made.

In addition to the foregoing, there were reported during the year 50 accidents which involved serious detention of passenger trains or damage to property, but resulted in no personal injuries.

The total number of persons killed and injured during the year ending June 30, 1913, namely, 801, shows an increase of 182 from the aggregate number reported for the preceding fiscal year, and a decrease of 51 from the average number reported annually for the preceding ten years. Of the total number of casualties, 319 were fatal, as against 279 reported for the year ending June 30, 1912, and as against 277, the average number of fatalities reported annually for the preceding ten years; while 482 were not fatal, as against 340 reported during the year ending June 30, 1912, and as against an average of 575 for the preceding ten-year period.

The percentage of passengers, employees, travellers on highway at grade crossings, and trespassers killed and injured during the year ending June 30, 1913, to the total number of casualties, is shown by the following table:—

	Killed.	Injured.	Total.
Passengers, ...	4.39	34.65	22.60
Employees, ...	30.41	42.53	37.70
Travellers on highway at grade crossings, .	7.21	3.94	5.24
Trespassers, ...	54.86	14.73	30.71
Other, ...	3.13	4.15	3.75
Total, ...	100.00	100.00	100.00

Passengers.

Fourteen passengers were killed and 167 injured during the year. Of the total fatalities to passengers, 6 were reported to have occurred from causes beyond their control and 8 as the result of their own imprudence or negligence. Of the num-

ber of passengers injured, namely, 167, 148 were reported as injured from causes beyond their control, while 19 were reported as injured through their own imprudence or negligence. The total number of passengers killed and injured during the preceding year was 15 and 103, respectively; the average number of passengers killed and injured annually during the years 1903-1912 was 10 and 77, respectively.

The character of accidents to passengers during the year ending June 30, 1913, is shown by the following:—

CHARACTER OF ACCIDENT.	Killed.	Injured.
Collision, ...	—	56
Derailment, ...	6	91
Falling, ...	1	10
Crossing track, ...	2	—
Getting on or off trains, cars, etc., ...	5	9
Other, ...	—	1
Total, ...	14	167

The following table shows the ratio of passengers killed and injured to the total number of passengers carried and miles travelled by passengers on railroads in Massachusetts during the years ending June 30, 1912-1913:—

PASSENGERS CARRIED, ETC.	1912.	1913.
Number of passengers carried in Massachusetts, ¹	132,805,003	136,223,014
Passenger miles travelled in Massachusetts, ¹	2,297,559,401	2,368,935,650
Passengers <i>killed</i> by causes beyond their control, ...	0	6
Ratio to total passengers carried, ...	-1 to 22,703,836	
Ratio to total passenger miles travelled,	-1 to 394,822,608	
Passengers <i>injured</i> by causes beyond their control, ...	66	148
Ratio to total passengers carried, ...	1 to 2,012,197	1 to 920,426
Ratio to total passenger miles travelled,	1 to 34,659,991	1 to 16,006,322
Passengers <i>killed</i> by their own fault or want of care, ...	15	8
Ratio to total passengers carried, ...	1 to 8,853,667	1 to 17,027,878
Ratio to total passenger miles travelled,	1 to 153,170,627	1 to 296,116,956
Passengers <i>injured</i> by their own fault or want of care, ...	37	19
Ratio to total passengers carried, ...	1 to 3,589,324	1 to 7,169,632
Ratio to total passenger miles travelled,	1 to 62,096,200	1 to 124,680,824

¹ The total number of passengers carried and the total passenger miles travelled in Massachusetts are estimated to be about 80 per cent of the total number carried and travelled on the several roads, both in and out of the State.

Employees.

During the year 97 employees were killed and 205 were injured, as against 91 killed and 144 injured during the preceding twelve months. The average number of employees killed and injured annually during the preceding ten years was 86 and 401, respectively.

The number of employees killed and injured during the year ending June 30, 1913, classified by character of employment, is shown by the following:—

CHARACTER OF EMPLOYMENT.	1912.		1913.	
	Killed.	Injured.	Killed.	Injured.
Enginemen and firemen, ...	11	20	10	36
Conductors and trainmen, ...	36	90	42	132
Trackmen and laborers, ...	21	10	24	15
Switchmen, ...	2	2	2	—
Stationmen, ...	—	2	3	2
Signalmen, ...	—	2	1	—
Crossingmen, ...	3	1	1	1
Inspectors, ...	4	6	4	2
Machinists, ...	—	—	1	2
Freight handlers, ...	1	4	—	4
Yardmen, ...	—	—	—	2
Watchmen and janitors, ...	1	1	—	—
Engine-house men, ...	4	2	3	2
Car cleaners, ...	1	2	1	3
Lampmen, ...	—	1	2	—
Linemen, ...	—	—	—	1
Carpenters, painters, repairmen, ...	4	—	2	2
Other, ...	3	1	1	1
Total, ...	91	144	97	205

The following table shows the character of accidents to employees during the year ending June 30, 1913: —

CHARACTER OF ACCIDENT.	1912.		1913.	
	Killed.	Injured.	Killed.	Injured.
Collision, ...	6	19	7	57
Derailment, ...	2	4	2	10
Overhead and side obstruction, ...	4	17	7	13
Coupling and uncoupling, ...	3	13	12	21
Falling, ...	16	35	11	42
Engine accidents, ...	3	1	—	9
Walking on or crossing tracks, ...	31	7	28	3
Getting on or off cars, trains, etc., ...	4	20	1	16
Working on track, ...	15	6	17	10
Other, ...	7	22	12	24
Total, ...	91	144	97	205

Grade Crossings.

The number of travellers on highway killed at grade crossings during the year was 23, and the number injured 19, as against 24 killed and 19 injured during the preceding year.

Of the total number killed, 13 were killed at grade crossings protected by gates, flagmen or otherwise; 7 at unprotected crossings, and 3 at unprotected private crossings.

Of the total number injured, namely, 19, 12 were injured at protected crossings and 7 at unprotected crossings.

The following table shows, for the year ending June 30, 1913, the number and character of accidents at grade crossings on the different railroads: —

Accidents at Grade Crossings during the Year ending June 30, 1913.

RAILROADS.	PROTECTED CROSSINGS.				UNPROTECTED CROSSINGS.				TOTAL.				AT PRIVATE CROSSINGS.	
	Number.	Killed.	Injured.	Ratio of Accidents to Crossings.	Number.	Killed.	Injured.	Ratio of Accidents to Crossings.	Number.	Killed.	Injured.	Ratio of Accidents to Crossings.	Killed.	Injured.
Attleborough Branch, ...	—	—	—	—	15	—	—	—	15	—	—	—	—	—
Boston & Albany, ...	60	2	2	1 to 15	123	2	—	1 to 62	183	4	2	1 to 31	—	—
Boston & Maine, ...	513	7	2	1 to 57	203	4	—	1 to 51	716	11	2	1 to 55	1	—
Boston, Revere Beach & Lynn, ...	9	—	—	—	—	—	—	—	9	—	—	—	—	—
Grafton & Upton, ...	1	—	—	—	28	—	—	—	29	—	—	—	—	—
Hoosac Tunnel & Wilmington, ...	—	—	—	—	3	—	—	—	3	—	—	—	—	—
Nantucket, ...	4	—	—	—	2	—	—	—	6	—	—	—	—	—
New London Northern, ...	7	—	—	—	39	—	—	—	46	—	—	—	—	—
New York, New Haven & Hartford, ...	471	4	8	1 to 39	302	1	7	1 to 38	773	5	15	1 to 39	2	—
Totals for the year, ...	1,065	13	12	1 to 43	715	7	7	1 to 51	1,780	20	19	1 to 46	3 ¹	—
Totals for the year ending June 30, 1912, ...	1,048	15	7	1 to 48	736	7	10	1 to 43	1,784	22	17	1 to 46	2 ¹	2 ¹

¹ Unprotected.

Trespassers.

The total number of trespassers killed during the year ending June 30, 1913, was 175; the number of trespassers injured was 71. During the preceding year 132 trespassers were killed and 60 injured, while the average number killed and injured annually for the preceding ten years was 143 and 62 respectively.

The character of accidents to trespassers during the year ending June 30, 1913, is shown by the following: —

CHARACTER OF ACCIDENT.	Killed.	Injured.
Collision, ...	1	2
Overhead or side obstruction, ...	2	2
Falling, ...	12	11
Walking on or crossing track, ...	150	39
Getting on or off cars, trains, etc., ...	7	16
Other, ...	3	1
Total, ...	175	71

Other Persons.

Seven persons were reported killed and 19 injured during the year, classified as follows: —

	Killed.	Injured.
Employees of contractors, consignees and consignors, street railway company, etc., ...	6	17
Employees of Pullman, express companies, etc., ...	1	2
Total, ...	7	19

In addition to the above, 3 persons were reported killed and 1 injured, whose proper classification in the reports of accidents was indeterminable.

RAILROAD BRIDGES.

To the Massachusetts Public Service Commissioners.

GENTLEMEN: — I beg leave to present the following statement regarding the bridges on the steam railroads of the Commonwealth, accompanied by the usual tables.

Table I. gives the total number of bridges of each type, on each of the railroads.

Table II. gives the approximate total length of bridges of stone, wood and metal, on each road.

Table III. gives a summary of the bridge work done during the year ending June 30, 1913.

TABLE I. — Number and Description of Railroad Bridges in Massachusetts, June 30, 1913.

RAILROADS.	Pile Bridges.	Steel and Wooden Trestles.	Wooden Stringers.	Braced or Trussed Stringers.	Wooden or Combination Trusses.	Stone, Concrete, or Brick Arches.	I-Beams.	Plate Girders.	Metal Riveted Trusses.	Metal Pin-connected Trusses.	Rails.	Pin-connected Metal Swing Bridges.	Metal Folding, Rolling, Lift, Bascule or Jack-knife Draw.	Pratt, Howe or other Wooden Jack-knife Draw.	Plate Girder Swing Bridges.	Trussed Beam Swing Draw.	Total Spans Stone Bridges.	Total Wooden and Combination Bridges (Fixed Spans).	Total Metal Bridges (Fixed Spans).	Total Movable Bridges.	Grand Totals.	Total Length of Pile and Trestle Bridging (Approximate).
Boston & Albany, ...	5	4	—	—	—	57	56	140	33	—	—	—	4	—	—	—	57	9	229	4	299	2,343
Boston & Maine, ...	57	14	60	4	13	196	75	331	63	43	—	—	7	8	—	—	98	148	514	15	775	22,542
Boston, Revere Beach & Lynn, ...	5	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	5	—	2	7	4,985
New London Northern, ...	5	2	7	1	—	1	4	21	9	7	—	—	—	—	—	—	1	15	41	—	57	508
New York, New Haven & Hartford, ...	72	9	67	1	5	140	71	523	17	23	10	4	3	2	—	—	140	154	644	9	947	14,040
Totals, ...	144	29	134	6	18	296	206	1,015	122	73	10	4	15	10	1	—	296	331	1,428	30	2,085	44,418

1 Two reinforced concrete boxes.

TABLE II. — *Length of Bridging of Wood, Stone and Metal, June 30, 1913.*

RAILROADS.	WOODEN BRIDGES.		STONE OR CONCRETE BRIDGES.		METAL BRIDGES.	
	Number.	Total Length (Feet).	Number.	Total Length (Feet).	Number.	Total Length (Feet).
Boston & Albany, ...	9	2,343	57	1,481	233	12,533
Boston & Maine, ...	155	24,351	98	2,116	520	28,726
Boston, Revere Beach & Lynn,	5	4,985	—	—	2	130
New London Northern, . .	15	644	1	20	41	2,884
N. Y., N. H. & Hartford, .	155	15,618	140	3,695	652	26,775
Totals, ...	339	47,941	296	7,312	1,448	71,048

TABLE III. — *Bridge Work Done in the Year ending June 30, 1913.*

RAILROADS.	NEW BRIDGES BUILT.			BRIDGES REBUILT OR REPLACED.			BRIDGES STRENGTHENED OR EXTENSIVELY REPAIRED.		
	Wood.	Stone or Concrete.	Metal.	Wood.	Stone or Concrete.	Metal.	Wood.	Stone or Concrete.	Metal.
Boston & Albany, ...	—	—	2	—	—	19	—	—	2
Boston & Maine, ...	—	—	—	7 ¹	—	7 ²	5	1	7
Boston, Revere Beach & Lynn,	—	—	—	—	—	—	—	—	—
New London Northern, . .	—	—	—	—	—	—	—	—	—
N. Y., N. H. & Hartford, . .	—	1	—	20 ³	—	3 ⁴	12	—	3
Totals, ...	—	1	2	27	—	29	17	1	12

¹ Two replaced by pipes, one by steel, one filled.² One replaced by wood, two by concrete boxes.³ Three replaced by I-beams, three by plate girders, one by concrete arch.⁴ One replaced by a concrete arch.

On the Boston and Albany two new plate girder bridges have been built in connection with the Worcester grade crossing elimination, two I-beams have been replaced by plate girders, one plate girder has been replaced by an I-beam, five plate girders and ten I-beams have been rebuilt, one lattice truss has been replaced by I-beams and two plate girder bridges have been strengthened.

On the Boston and Maine two wooden stringers have been replaced by 48 inch pipes, one iron stringer has been replaced by a wooden stringer, one wood stringer has been rebuilt and one wood stringer has been replaced by a steel bridge, two iron stringers have been replaced by reinforced concrete boxes, one iron stringer has been replaced by steel, one pony pin truss has been replaced by a plate girder, one plate girder has been rebuilt, one riveted truss bridge has been rebuilt, one pile bridge has been filled, two pile bridges have been rebuilt; seven iron trusses, one trussed stringer, four wooden stringers and one stone arch have been strengthened.

On the New York, New Haven and Hartford, ten wooden stringer bridges have been rebuilt, three wooden stringers have been replaced by I-beams, one pile bridge has been replaced by a plate girder, one iron truss has been replaced by a plate girder, one wooden draw span has been replaced by steel, one new concrete arch has been built in connection with the grade crossing elimination at Clinton, one wooden stringer has been replaced by a plate girder, three pile bridges have been rebuilt, one draw span has been replaced by a bascule bridge, one pile bridge and one plate girder have been replaced by concrete arches.

During the last few years the bridges on the main line of the Boston and Albany railroad have been largely reconstructed, on account of the increase in weight of rolling stock. This is the principal bridge work which has been done in the state in connection with steam railroads. It may reasonably be anticipated that similar reconstruction will be done in the near future on some of the other three lines, such, for instance, as the Fitchburg railroad, having the same object in view.

Respectfully submitted,

GEO. F. SWAIN,
Consulting Engineer.

ISSUES OF STOCK AND BONDS.

Issues of Capital Stock.

RAILROAD CORPORATIONS.	Date when Authorized.	Amount Authorized.
	1913.	
Boston and Maine, ...	February 7	\$10,663,700
Boston, Revere Beach and Lynn, . . .	December 31	170,000
New York, New Haven and Hartford, .	October 14	67,552,000 ¹

¹ See note below as to conversion of evidences of indebtedness by this company.

Issues of Bonds.

RAILROAD CORPORATIONS.	Date when Authorized.	Amount Authorized.
	1913.	
Boston and Albany, ...	April 12	\$3,627,000
Boston and Albany, ...	June 12	2,015,000
Boston and Lowell, ...	January 15	1,000,000
Boston and Maine, ...	February 7	7,500,000
Boston, Revere Beach and Lynn, . . .	July 11	150,000
New York, New Haven and Hartford, .	October 14	67,552,000 ¹

¹ Convertible debentures; the decision also containing an order approving an issue of 675,520 shares of capital stock, in payment of said evidences of indebtedness by means of the conversion thereof into such shares of capital stock at par. On appeal from the decision of the Commission the Supreme Judicial Court, on January 9, 1914, annulled the order.

RAILWAYS.

Annual returns for the year ending June 30, 1913, have been received from fifty-four street railway companies, and returns to the date of their consolidation were also received from eight companies, making sixty-two returns.

The name of one company was changed: the Athol & Orange to Northern Massachusetts.

COMPANIES DROPPED FROM THE LIST.

During the year three companies have been dropped from the list, as follows: the Lowell, Acton & Maynard; the Lexington & Boston; these companies having been consolidated during the previous year. The Worcester & Providence has also been dropped, the enterprise having been abandoned, and proceedings are now pending to dissolve the company.

CONSOLIDATION OF COMPANIES.

During the year the Amesbury & Hampton (April 2, 1913), the Citizens (April 2, 1913), the Lawrence & Methuen (April 2, 1913), the Lowell & Pelham (April 2, 1913), the Haverhill & Amesbury (April 2, 1913), and the Haverhill & Plaistow (April 2, 1913) were consolidated with the Massachusetts Northeastern; the Templeton (December 31, 1912), and the Gardner, Westminster & Fitchburg (February 28, 1913) were consolidated with the Athol & Orange. All these companies have made returns to these several dates. The Lexington & Boston (July 1, 1912) was consolidated with the Middlesex & Boston. No return was made by that company.

OPERATION OF COMPANIES.

By reason of consolidations and abandonment there were, at the end of the year, fifty-four existing companies; of this number forty operated their railway and fourteen were operated under leases or contracts by other companies.

RAILWAY MILEAGE.

New Mileage.

The net increase during the past year in the mileage of the Massachusetts companies is 48.314 miles of street railway line, and 39.744 miles of second track, making 88.058 miles additional main track. There was also a net decrease of 20.266 miles of side track, making a total net increase of 67.792 miles reckoned as single track.

Mileage Owned.

The Massachusetts companies now own 2,323.783 miles of street railway line, 508.417 miles of second main track and 182.892 miles of side track, making the total length of track owned, reckoned as single track, 3,015.092 miles. All the track owned is surface street railway track, with the exception of 13.399 miles of elevated line and 13.179 miles of elevated second track. Of the sidings, all are surface track, with the exception of 8.440 miles of elevated track. All the elevated track is located in the cities of Boston and Cambridge.

Mileage Operated.

The total miles of main track (including trackage rights) operated was 2,918.549, — an increase of 96.657 miles over the previous year.

The Bay State leases and operates the Nashua, located in New Hampshire, and the Newport and Fall River, located in Rhode Island, having a total mileage of 37.560 miles of main and second track. The Berkshire leases and operates The Vermont Company, having a mileage of main and second track of 27.408 miles, located in Vermont. The Massachusetts Northeastern owns, leases and operates 43.810 miles of main and second track, located in New Hampshire. Accordingly, 108.778 miles of main and second track are operated outside of this Commonwealth.

STATISTICS.

BOSTON, January 1, 1914.

Public Service Commission.

GENTLEMEN: — I submit the following compilations of statistics from the returns of the several street railway companies to the Commission for the year ending June 30, 1913.

The following table gives the length of railway line and track and total reckoned as single track returned by the companies for the year ending June 30, 1913, as compared with the previous year: —

Street Railway Mileage Owned, 1912 and 1913.

MILEAGE OWNED.	1912.	1913.	Increase.
	Miles.	Miles.	Miles.
Length of railway line, ...	2,275.469	2,323.783	48.314
Length of second track, ...	468.673	508.417	39.744
Total length of main track, . .	2,744.142	2,832.200	88.058
Length of side track, ...	203.158	182.892	20.266*
Total reckoned as single track, .	2,947.300	3,015.092	67.792

* Decrease.

Mileage Operated.

The total miles of main track operated (including trackage rights) June 30, 1913, was 2,918.549, — an increase of 96.657 miles over the previous year. All the track operated is in this Commonwealth except 108.778 miles located in New Hampshire, Rhode Island and Vermont and operated by the Bay State, Berkshire, or Massachusetts Northeastern.

ASSETS AND LIABILITIES.

The gross assets of the companies, June 30, 1913, were \$216,022,752.26. The several classes of assets and the increase or decrease in each class, as compared with the same companies in 1912, are shown in detail in the following table: —

Assets, June 30, 1912 and 1913.

ASSETS.	1912.	1913.	Increase.
Construction, ...	\$102,493,196	\$105,623,600	\$3,130,404
Equipment, ...	33,716,967	34,751,749	1,034,782
Land and buildings, . . .	46,201,219	48,343,319	2,142,100
Other permanent property, .	5,569,880	6,367,460	797,580
Cash and current assets, . .	7,939,172	10,795,460	2,856,288
Miscellaneous assets, . . .	9,144,695	10,141,164	996,469
Grand total, ...	\$205,065,129	\$216,022,752	\$10,957,623

The gross liabilities at the same date, including capital stock (but not including sinking and other funds) were \$205,149,782.51. The several kinds of liabilities, and the amount of each as compared with the same companies in 1912, were as follows:—

Gross Liabilities, June 30, 1912 and 1913.

LIABILITIES.	1912.	1913.	Increase.
Capital stock, ...	\$89,118,975	\$97,284,375	\$8,165,400
Funded debt, ...	77,706,700	85,615,700	7,909,000
Real estate mortgages, . .	308,800	3,800	305,000*
Current liabilities, . . .	23,651,300	19,489,170	4,162,130*
Accrued liabilities, . . .	2,874,294	2,756,738	117,556*
Gross liabilities, ¹ . . .	\$193,660,069	\$205,149,783	\$11,489,714
Sinking and other reserve funds,	4,042,187	3,394,148	648,039*
Surplus, ²	7,362,873	7,478,821	115,948
Grand total, ...	\$205,065,129	\$216,022,752	\$10,957,623

¹ Exclusive of sinking and other reserve funds.

² Includes premiums on sale of stock and bonds.

* Decrease.

It will be seen by comparing the last two tables that there was an increase in gross assets of \$10,957,623, and there was an increase in gross liabilities of \$11,489,714, thus decreasing the aggregate surplus and sinking and other special funds of the companies by the amount of \$532,091.

The gross assets, the gross liabilities (including capital stock) and the surplus of the companies, with the percentage of surplus to capital stock, at the end of each of the last nine years and of the nine months ending June 30, 1910, are shown in the following table: —

Gross Assets, Liabilities and Surplus, 1904-1913.

YEARS.	Gross Assets.	Gross Liabilities.	Surplus.*	Percentage of Surplus to Capital.
1904, . . .	\$140,843,740	\$136,049,486	\$4,794,254	6.99
1905, . . .	151,742,233	145,603,242	6,138,991	8.73
1906, . . .	156,478,141	149,672,263	6,805,878	9.56
1907, . . .	161,297,914	153,847,904	7,450,010	10.17
1908, . . .	170,154,909	162,034,970	8,119,939	10.86
1909, . . .	177,745,988	168,628,151	9,117,837	11.29
1910,† . . .	185,456,188	175,470,489	9,985,699	11.84
1911, . . .	191,791,508	180,368,094	11,423,414	13.19
1912, . . .	205,065,129	193,660,069	11,405,060	12.80
1913, . . .	216,022,752	205,149,783	10,872,969	11.18

* Includes "premiums on sales of stock and bonds" and "sinking and other special funds."

† For nine months ending June 30, 1910.

CAPITAL STOCK AND DIVIDENDS.

The aggregate capital stock of the sixty-four companies, June 30, 1913, was \$97,284,375.00, — an increase of \$8,165,400.00 over the preceding year.

Dividends.

The total amount of dividends declared the past year was \$5,031,727.34. Thirty-four out of the sixty-two companies paid dividends ranging from 2.5 to 10 per cent, and twenty-eight companies declared or paid no dividends. One company paid 10 per cent, three paid 8 per cent; one paid 8 per cent on preferred and 7 per cent on common; one paid 7.20 per cent; one paid 7 per cent; eight paid 6 per cent; one paid 6 per cent on preferred; two paid 6 per cent on preferred and 5 per cent on common; two paid 6 per cent on preferred and 2.5 per cent on common; two paid 5.5 per cent; five paid 5 per cent; one paid 4 per cent; one paid 3.75 per cent; one paid 3.61 per cent; two paid 3 per cent; and one paid 3 per cent and 2.5 per cent on varying amounts of common and 1.5 per cent on preferred capital stock.

Capital Stock, Net Income and Dividends, 1904-1913.

YEARS.	Capital Stock.	Net Divisible Income.	Dividends Declared.	Percentage on Total Capital Stock.
1904, . . .	\$68,542,038	\$2,998,114	\$3,214,496	4.69
1905, . . .	70,326,985	3,556,690	3,174,505	4.51
1906, . . .	71,216,925	4,160,073	3,554,073	4.99
1907, . . .	73,280,155	4,125,185	3,721,388	5.08
1908, . . .	74,737,505	4,094,977	3,950,965	5.29
1909, . . .	80,728,880	4,527,547	4,120,223	5.10
1910,† . . .	84,345,065	2,600,375	2,767,315	3.28
1911, . . .	86,639,175	5,548,479	4,788,907	5.52
1912, . . .	89,118,975	4,975,801	4,916,371	5.52
1913, . . .	97,284,375	4,901,291	5,031,728	5.17

† For nine months ending June 30, 1910.

FUNDED AND FLOATING DEBT.

The funded debt of the companies, June 30, 1913, was \$85,-615,700.00, — an increase of \$7,909,000.00 over the preceding year.

Floating Debt.

The amount of real estate mortgages outstanding June 30, 1913, was \$3,800.00, a decrease of \$305,000.00.

The total unfunded debt, including the above mortgages, was \$22,249,708, a decrease of \$4,584,686.

The gross debt, funded and unfunded, was \$107,865,408, — an increase of \$3,324,314.

The net debt (the gross debt less \$10,795,460 of cash and current assets) was \$97,069,948, — an increase of \$468,026. In computing the net debt the sum of \$10,141,164, returned as "miscellaneous assets", covering materials and supplies on hand, etc., is not included with cash and current assets in the deduction from gross debt.

The funded debt, unfunded debt, gross debt, cash and current assets, and net debt, at the end of each of the last nine years and of the nine months ending June 30, 1910, are shown in the following table: —

Funded, Unfunded, Gross and Net Debt, 1904-1913.

YEARS.	Funded Debt.	Unfunded Debt. ¹	Gross Debt.	Cash and Current Assets.	Net Debt. ²
1904, .	\$46,674,884	\$20,832,564	\$67,507,448	\$6,554,738	\$60,952,710
1905, .	55,780,500	19,495,758	75,276,258	12,315,705	62,960,553
1906, .	58,176,000	20,279,338	78,455,338	10,447,216	68,008,122
1907, .	59,339,500	21,228,249	80,567,749	5,855,412	74,712,337
1908, .	66,348,500	20,948,965	87,297,465	8,170,683	79,126,782
1909, .	68,078,000	19,821,271	87,899,271	11,959,339	75,939,932
1910, ³ .	67,762,000	23,363,424	91,125,424	8,785,108	82,340,316
1911, .	71,508,700	22,220,219	93,728,919	8,231,929	85,496,990
1912, .	77,706,700	26,834,394	104,541,094	7,939,172	96,601,922
1913, .	85,615,700	22,249,708	107,865,408	10,795,460	97,069,948

¹ Including real estate mortgages.

² Gross debt less cash and current assets.

³ For nine months ending June 30, 1910.

Capital Investment.

The total capital investment (capital stock and net debt) of the street railway companies of the state on June 30, 1913, was \$194,354,323, — an increase of \$8,633,426 for the year.

COST AND CAPITAL INVESTMENT PER MILE.

The average cost of the street railways of the state, per mile of main track (including the cost but not the length of side track), as returned by the companies June 30, 1913, was \$37,293.84 for construction; \$12,270.23 for equipment; and \$19,317.41 for lands, buildings (including power plants), parks and other permanent property, — making a total average cost of \$68,881.48 per mile of main track.

The following table gives the average cost, classified as above, and also the average capital investment (amount of outstanding capital stock and net debt), per mile of main track, as returned by all of the companies at the end of each of the last nine years and of the nine months ending June 30, 1910: —

Cost and Capital Investment per Mile of Main Track, 1904-1913.

YEARS.	Construction.	Equipment.	Other Permanent Property. ¹	Total Cost per Mile.	Capital Investment per Mile. ²
1904, . .	\$27,025	\$10,177	\$13,106	\$50,308	\$50,295
1905, . .	27,876	10,112	13,321	51,309	50,772
1906, . .	28,974	10,212	13,616	52,802	52,535
1907, . .	30,064	10,801	14,563	55,428	55,624
1908, . .	31,005	11,103	15,569	57,677	57,521
1909, . .	31,747	11,076	15,757	58,580	58,337
1910, ³ . .	32,484	11,654	17,594	61,732	61,673
1911, . .	36,216	11,760	16,250	64,226	63,268
1912, . .	37,350	12,287	18,866	68,503	67,679
1913, . .	37,294	12,270	19,317	68,881	68,623

¹ Chiefly lands, parks, buildings and power plants.² Outstanding capital stock and net debt.³ For nine months ending June 30, 1910.

INCOME AND EXPENDITURES.

The total income of the companies from all sources for the year ending June 30, 1913, was \$40,014,034.03, and the total expenditures (including dividends declared) for the same period were \$40,144,470.87, — making a net deficit of \$130,436.84 to be deducted from the surplus of previous years.

The sources of total income, and the amount derived from each source as compared with 1912 are shown in the following table: —

Total Income, 1912 and 1913.

INCOME.	1912.	1913.	Increase.
Total operating revenues, .	\$36,080,237	\$38,125,693	\$2,045,456
Rents from lease of road, .	116,322	116,215	107*
Other income, ...	2,218,298	1,772,126	446,172*
Total income, ...	\$38,414,857	\$40,014,034	\$1,599,177

* Decrease.

The items of total expenditure, with the increase and decrease in each item over the previous year, are shown in the following table: —

Total Expenditures, 1912 and 1913.

EXPENDITURES.	1912.	1913.	Increase.
Operating expenses, . .	\$24,363,903	\$25,729,054	\$1,365,151
Taxes, ...	2,456,283	2,500,439	44,156
Interest on debt and loans, .	4,062,643	4,316,216	253,573
Rents of leased lines, . .	1,737,685	1,753,159	15,474
Other deductions, . . .	818,542	813,875	4,667*
Dividends declared, . .	4,916,371	5,031,728	115,357
Total expenditures, . .	\$38,355,427	\$40,144,471	\$1,789,044
Surplus for the year, . .	59,430	130,437 ^d	189,867*

^d Deficit.

* Decrease.

EARNINGS AND EXPENSES OF OPERATION.

The gross earnings and expenses of operation the last year are classified and compared with those of the previous year in the following table: —

Operating Revenues and Expenses, 1912 and 1913.

REVENUES AND EXPENSES.	1912.	1913.	Increase.
Revenue from passengers, .	\$34,760,145	\$36,559,543	\$1,799,398
from mails and merchandise, . . .	385,383	558,359	172,976
from tolls, advertising, etc., . . .	934,709	1,007,791	73,082
Total operating revenues,	\$36,080,237	\$38,125,693	\$2,045,456
Operating expenses, . . .	24,363,903	25,729,054	1,365,151
Net operating revenue, .	\$11,716,334	\$12,396,639	\$680,305

VOLUME OF TRAFFIC.

The total number of passengers * carried during the last year as reported by the forty-eight operating railway companies making returns to this Commission was 738,522,280, — an increase of 36,724,006 passengers * over the previous year.

The total number of miles run by street cars during the year was 130,588,851, — an increase of 5,510,127 miles over the previous year.

The following table gives the total volume of traffic, itemized as above, for each of the last nine years and for the nine months ending June 30, 1910: —

* Computed on the basis of five or six-cent fares collected.

Volume of Traffic, 1904-1913.

YEARS.	Total Passengers Carried.*	Average Number per Mile of Main Track Operated.*	Total Car Miles Run.
1904, ...	520,056,511	195,917	107,897,456
1905, ...	532,731,017	199,637	109,258,739
1906, ...	581,450,906	212,514	114,312,626
1907, ...	600,695,816	217,042	117,719,203
1908, ...	602,400,874	219,774	116,982,089
1909, ...	624,532,753	225,887	117,493,499
1910,†	469,330,784	169,921	87,712,572
1911, ...	683,362,717	246,021	123,659,082
1912, ...	701,798,274	248,698	125,078,724
1913, ...	738,522,280	253,044	130,588,851

* Computed on the basis of five or six-cent fares collected.

† For nine months ending June 30, 1910.

EARNINGS AND EXPENSES OF OPERATION.

The following table gives the gross earnings from operation, the operating expenses, the ratio of operating expenses to gross earnings, and the net earnings for each of the last nine years and for the nine months ending June 30, 1910: —

Percentage of Operating Expenses to Gross Earnings, 1904-1913.

YEARS.	Gross Earnings from Operation.	Operating Ex- penses.	Percentage of Expenses to Earnings.	Net Earnings.
1904, ...	\$26,207,247	\$18,397,291	70.20	\$7,809,956
1905, ...	27,041,291	18,269,259	67.56	8,772,032
1906, ...	29,563,892	19,954,000	67.49	9,609,892
1907, ...	30,557,862	20,689,668	67.71	9,868,194
1908, ...	30,780,962	20,541,577	66.73	10,239,385
1909, ...	31,956,007	20,915,728	65.45	11,040,279
1910,*	24,032,236	16,191,893	67.38	7,840,343
1911, ...	35,036,997	22,895,804	65.34	12,141,193
1912, ...	36,080,237	24,363,903	67.53	11,716,334
1913, ...	38,125,693	25,729,054	67.48	12,396,639

* For nine months ending June 30, 1910.

The following tables give for each of the last nine years and for the nine months ending June 30, 1910, the average gross earnings, operating expenses, and net earnings from operation (1) per total mile of main track owned, (2) per car mile run and per passenger carried, — thus showing more in detail the changes from year to year in the earnings, cost, and net results of operation.

Gross and Net Earnings from Operation per Mile of Main Track Owned, 1904-1913.

YEARS.	AVERAGE PER MILE OF TRACK OWNED.		
	Gross Earnings.	Expenses of Operation.	Net Earnings.
1904, ...	\$10,178	\$7,145	\$3,033
1905, ...	10,300	6,959	3,341
1906, ...	11,156	7,529	3,627
1907, ...	11,485	7,776	3,709
1908, ...	11,507	7,679	3,828
1909, ...	11,899	7,788	4,111
1910,*	8,892	5,991	2,901
1911, ...	12,877	8,415	4,462
1912, ...	13,148	8,878	4,270
1913, ...	13,461	9,084	4,377

* For nine months ending June 30, 1910.

Gross and Net Earnings from Operation per Car Mile Run and per Passenger Carried, 1904-1913.

YEARS.	AVERAGE PER CAR MILE.			AVERAGE PER PASSENGER.		
	Gross Earnings.	Expenses of Operation.	Net Earnings.	Gross Earnings.	Expenses of Operation.	Net Earnings.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1904, . .	24.29	17.05	7.24	5.04	3.54	1.50
1905, . .	24.75	16.72	8.03	5.08	3.43	1.65
1906, . .	25.86	17.46	8.40	5.08	3.43	1.65
1907, . .	25.96	17.58	8.38	5.08	3.44	1.64
1908, . .	26.31	17.56	8.75	5.11	3.41	1.70
1909, . .	27.19	17.80	9.39	5.12	3.35	1.77
1910,* . .	27.39	18.45	8.94	5.12	3.45	1.67
1911, . .	28.33	18.51	9.82	5.13	3.35	1.78
1912, . .	28.85	19.48	9.37	5.14	3.47	1.67
1913, . .	29.19	19.70	9.49	5.16	3.48	1.68

* For nine months ending June 30, 1910.

EMPLOYEES AND EQUIPMENT.

The number of persons employed by the street railway companies, and also the number of cars, vehicles and electric motors owned, are given in the following table for each of the last nine years and for the nine months ending June 30, 1910: —

Employees and Equipment, 1904-1913.

YEARS.	Employees.	Cars.	Other Cars and Vehicles.	Electric Motors.
1904, ...	16,519	7,383	2,728	13,870
1905, ...	16,479	7,341	2,761	14,167
1906, ...	16,909	7,336	2,874	14,492
1907, ...	18,181	7,539	2,900	15,626
1908, ...	17,267	7,618	2,890	16,649
1909, ...	17,575	7,546	2,834	16,526
1910,*	18,839	7,669	2,869	17,586
1911, ...	21,972	7,821	2,907	17,921
1912, ...	23,290	8,004	2,929	18,267
1913, ...	24,136	8,154	2,897	19,623

* For nine months ending June 30, 1910.

STREET RAILWAY ACCIDENTS.

The whole number of persons injured, in connection with street railway operation, as returned by the companies for the year ending June 30, 1913, was 8,929, of whom 133 received fatal injuries and 8,796 injuries not fatal.

The number of passengers injured was 6,315, of whom 27 were injured fatally.

The injuries to employees were 667 in all, 19 of which were fatal.

The number of injuries to travellers and others on the street was 1,947, of which 87 were fatal.

These figures include a very large number of injuries of a trivial character that have been returned by the companies.

In the following table the accidents of the last year as returned are classified as above, and are compared with those of the previous year:—

Summary of Accidents Reported June 30, 1912 and 1913.

KILLED AND INJURED.	KILLED.		INJURED.		TOTALS.	
	1912.	1913.	1912.	1913.	1912.	1913.
Passengers, ...	27	27	5,701	6,288	5,728	6,315
Employees, ...	21	19	428	648	449	667
Other persons, ...	74	87	1,592	1,860	1,666	1,947
Totals, ...	122	133	7,721	8,796	7,843	8,929

Respectfully submitted,

J. W. LESTER,
Chief Accountant.

STREET RAILWAY BRIDGES.

The Public Service Commission, Hon. F. J. MACLEOD, Chairman.

GENTLEMEN:— I beg leave to report that during the past year the usual work has been done with reference to street railway bridges in this commonwealth. Numerous plans for new bridges, both of steel and of concrete, have been received, and have been finally approved, with or without suggested modifications. Various bridges have been inspected and biennial reports received and examined.

Respectfully submitted,

GEO. F. SWAIN,
Consulting Engineer.

ISSUES OF STOCK AND BONDS.

Issues of Capital Stock.

RAILWAY COMPANIES.	Date when Authorized.	Amount Authorized.
	1913.	
Athol and Orange, ...	March 26	{ \$90,500 ¹ 150,000 ²
Bay State, ...	March 5	660,000 ²
Berkshire, ...	March 28	1,000,000
Holyoke, ...	June 24	476,500
Massachusetts Northeastern, ...	December 31	{ 45,000 ¹ 665,000 ²
Northampton, ...	June 24	150,000
Plymouth and Sandwich, ...	May 22	{ 140,000 ¹ 57,000 ²
West End, ...	February 13	220,000

¹ Common stock.

² Preferred stock.

NOTE. — Issues of capital stock for the purpose of consolidation will be found in the appendix under *Consolidations*.

Issues of Bonds.

RAILWAY COMPANIES.	Date when Authorized.	Amount Authorized.
Bay State, ...	April ^{1913.} 2	\$266,000 ¹ 163,000 ²
Boston and Worcester, ...	May 15	140,000
Massachusetts Northeastern, ...	December 3	1,000,000
Northern Massachusetts, ...	June 20	500,000
Union, ...	December 3	250,000
West End, ...	February 13	600,000
Worcester Consolidated, ...	January 28	450,000
Worcester Consolidated, ...	January 28	50,000

¹ Boston and Northern St. Ry. Co. bonds.² Old Colony St. Ry. Co. bonds.

GENERAL DISCUSSION.

On May 1, 1913, the house of representatives adopted an order, adopted in concurrence by the senate on May 2, 1913, requesting the board of railroad commissioners and the bank commissioner to furnish to the general court answers to several questions relative to the provisions of sections 15 and 16 of House Bill No. 2329, "An act to change the name, enlarge the membership and increase the powers of the board of railroad commissioners," with respect to the issue of stock and bonds by railroad companies. These answers were transmitted to the general court on May 8, 1913, and appear in the appendix to this report.

On May 9, 1913, the house of representatives adopted an order, adopted in concurrence by the senate on May 12, 1913, requesting the board of railroad commissioners to investigate and report in the matter of the discontinuance of passenger service on the Fitchburg division of the Boston and Maine railroad. A hearing was given on this order on May 19, 1913. The report of this investigation was submitted to the general court on May 29, 1913, and appears in the appendix to this report.

On May 21, 1913, the house of representatives adopted an order, requesting the board of railroad commissioners to investigate and report with respect to better protection from fire of Mystic wharf and the property and buildings thereon in the Charlestown district of the city of Boston. A hearing was held on this matter on May 26, 1913. The Board transmitted its report to the house of representatives on May 29, 1913, and it appears in the appendix to this report.

Chapter 53 of the resolves of the general court for the year 1912 provided for an investigation and report by the board of railroad commissioners as to the construction of a new bridge over the tracks of the New York, New Haven and Hartford

railroad on Medway street in the Dorchester district of the city of Boston. The report on this investigation was submitted to the general court on January 15, 1913, and was printed as House Document No. 1394. It appears in the appendix to this report.

Chapter 113 of the resolves of the general court for the year 1912 provided for an investigation by a special commission composed of the attorney-general, the board of railroad commissioners, the board of gas and electric light commissioners, two members of the senate and four members of the house of representatives, relative to the holdings of voluntary associations and certain corporations and to the consolidation of companies controlled by them. The report of this special commission was transmitted to the general court on January 4, 1913, and was printed as House Document No. 1788.

Chapter 125 of the resolves of the general court for the year 1912 provided for an investigation by the board of railroad commissioners and the Massachusetts highway commission, sitting jointly, relative to the apportionment of the cost of abolishing grade crossings. The report and recommendations of this joint board were transmitted to the general court on January 9, 1913, and were printed as House Document No. 1878.

Chapter 108 of the resolves of the general court for the year 1913 provides for an investigation and report by the board of railroad commissioners and the Boston transit commissioners, sitting jointly, relative to the street railway service furnished by the Boston Elevated Railway Company and the Bay State Street Railway Company in the metropolitan district. This investigation will be made the subject of a special report, to be submitted to the general court.

SPRINGFIELD RIVER FRONT IMPROVEMENT.

The board of railroad commissioners made its report as the special commission in the matter of the improvement of the river front of the city of Springfield, under the provisions of chapter 551 of the Acts of 1907, as amended by chapter 352 of the Acts of 1910. This report was made on March 8, 1913, and appears in the appendix to this report.

ABOLITION OF GRADE CROSSINGS IN CHARLESTOWN.

Under the provisions of chapter 529 of the acts of the general court for the year 1912, a hearing has been held by the public service commission and the directors of the port of Boston, sitting as a joint commission, relative to the abolition of certain grade crossings in the Charlestown district of the city of Boston. The investigation required in the act is still in progress, and further hearings are to be given.

INSPECTION OF RAILROADS AND RAILWAYS.

The annual inspections of the railroads of the commonwealth for the year 1913 were made by the board of railroad commissioners during the months of May and June. Special attention was given to the physical condition of the properties with reference to road bed and track, bridges and stations, which were found to be, generally, in a satisfactory condition.

During the period June 30, 1912, to June 30, 1913, the inspectors attended 449 inquests; investigated 354 fatal accidents on public railroads; 128 fatal accidents on street railways; 1 fatal accident on private railroad; 45 accidents not of a fatal character on railroads, and 27 of this class of accidents on street railways. One hundred and fifty-one examinations of sections of railroad or railway track were made preliminary to the issue of certificates permitting operation.

The records of the office show that during the year the work of the inspection department in supervising railroads included 32,545 investigations or examinations, as follows:

Safeguards: Bridgeguards found defective, 291; footguards missing or defective, 666; miscellaneous, 21.

Service: Inspection of stations at various times during the year — showing stations in good condition in 3,532 cases; in fair condition in 1,087 cases; in poor condition in 76 cases. Special investigation of complaints relative to stations, 3. Special investigation of complaints relative to service, 12.

Rolling stock: Inspection of cars at various times during the year — found in good condition, 12,794; found in fair condition, 475; found in poor condition, 35; found defective as to tools and safeguards, 251. Special investigation of complaints relative to cars, 5.

Recommendations relative to poor condition of track, 16.

Locomotives: Engine failures investigated, 9,076; locomotives inspected and found in good condition at various times during the year, 1,576; found defective, 120; boiler tests examined, 2,477. Special investigation of crossings during the year, 16. Special investigation of complaints relative to noise and smoke, 8.

The records show that during the year the inspection department in the work of supervising street railways made 755 investigations or examinations, as follows:

Delays of more than twenty minutes: From spread rails, 317; from broken axles on cars, 66; from defective brakes, 57; from broken rails, 20; from unsatisfactory track conditions, 56; from defective switches, 25; from miscellaneous causes, 84.

Examination of safety devices, 20; miscellaneous, 65.

Recommendations relative to unsatisfactory track conditions, 45.

CHANGES IN TELEPHONE RATES.

By the provisions of chapter 78 of the Resolves of 1909 the Massachusetts Highway Commission was directed to cause to be made a further study of the operation and methods of accounting of the New England Telephone and Telegraph Company, especially that part of its operations which are within the commonwealth, an appropriation of thirty-five thousand dollars being made available by the terms of the resolve.

Messrs. D. C. and Wm. B. Jackson, experts of that commission, conducted the investigation, making two voluminous reports.

In its report of last year the Highway Commission recommended that the work should be continued, that a traffic count should be made and the effect of the new rates studied to see if they were equitable or just, whether they met the needs of the communities and if not what changes or improvements should be made.

By chapter 40 of the Resolves of 1913, approved April 2, 1913, the Highway Commission was directed to cause this further study to be made, the expense being limited to the sum of \$7,500, with a provision that if the regulation of telephone and telegraph rates was transferred to any other board or com-

mission any unexpended balance of the said amount might be expended by such board or commission. In accordance with this resolve the Messrs. Jackson, on June 28, 1913, submitted a report on the changes in telephone rates in Massachusetts, 1908-1913, to the Highway Commission, which upon the reorganization of this Commission was transmitted to this office and placed in its files. The report was as follows:

GENTLEMEN: — We give you herewith a summary of the telephone rate changes which have taken place under your direction since the beginning of 1908, in matters in which we have served you as engineers. The rapid development of the telephone service in the Commonwealth during that period is typified by the growth of the number of telephones in Boston and its immediate suburbs. At the opening of 1908 the number of main telephone stations in what is now called the Metropolitan District and was then called the Boston and Suburban District was 69,924, and the total number of telephones was 95,851. On the last of April, 1913, the number of main stations was 114,789, and the total number of telephones was 160,539 in the same territory. This is an increase of 64.2 per cent. in main stations and 67.5 per cent. in total telephones in five and one-third years, that is, an average rate of increase of 12,100 total telephones per twelve months during that period. Main stations include subscribers' primary telephones and the trunk lines to private branch exchanges, but do not include extension telephones and private branch exchange terminal telephones. The total telephones comprise all installed subscribers' telephone instruments except those on switchboards.

Tables which are referred to later herein give the relations of the telephone equipment and traffic between the two dates.

I. Rate Changes of 1908.

During 1907 a series of public hearings were held in respect to the telephone rates and service in and about Boston, and on January 21, 1908, you instructed Mr. Dugald C. Jackson of this firm to study the situation and give you a report in reply to the following three questions: —

1. Is an appraisal of the plant of the New England Telephone and Telegraph Company necessary before any satisfactory solution can be had of the general problem of what should be the equitable rates for service of said company throughout its Massachusetts territory, and, if so, how should such inventory and appraisal be made and what would be the probable cost of the same?

2. Without prejudice to the general problem of what should be the equitable rates for service of the New England Telephone and Telegraph Company throughout its Massachusetts territory, and in the absence of a complete inventory and appraisal of the plant of said company, is it possible to reduce the toll rates now in force in the Boston and Suburban division for toll business

into and out from the so-called Metropolitan exchanges, and if such a reduction may be so made upon what basis should it be effected?

3. With the same premises as stated in Question 2, in order to improve the quality of the service given by the New England Telephone and Telegraph Company, is it possible and is it advisable to change at the present time the multi-party lines in the Boston and Suburban division to lines having not more than two subscribers thereon with the so-called "divided ringing" appliances?

The report giving our answers to these questions was delivered to you under date of March 10, 1908, to the effect that an adequate revision of the telephone rates could not be made without an inventory and appraisal of the property of the company and its subsidiaries, inasmuch as its books of records and accounts had not kept full record of the extent of the property, and that a preliminary adjustment of the Boston and Suburban toll rates ought to be made by reducing from ten cents to five cents the charge paid for messages between the several central offices in the Central District of Boston and the sixteen adjacent central offices as follows: Brighton, Brookline, Cambridge, Charlestown, Chelsea, Dorchester, East Boston, Everett, Jamaica Plain, Malden, Medford, Revere, Roxbury, Somerville, South Boston and Winthrop. Your Honorable Commission recommended to the telephone company that the aforesaid change in toll rates should be made, and the rates were put into effect. The change reduced by one-half the toll rates for all messages between the offices in the Central District and suburban offices within five miles of the centre of gravity of the Central District.

At the time that this adjustment of the toll rates was made there was in existence substantially no data or experience of the effect that changes of this kind in such a territory would make on the message traffic, and it was therefore very difficult to forecast what the result would be on the company's revenue from these messages, which revenue at that time amounted to a considerable sum. Using the best information which we could bring to bear on the subject, we estimated that the number of messages of the classes involved would gradually increase after the ten cent price was reduced to five cents, so that the traffic on which ten cents had been charged might be expected to nearly or about double in a couple of years.

When the further adjustment of rates was made two years later as the result of the inventory of the telephone company's property, the five cent radius was increased to eight miles, within which radius are included the following central offices in addition to those already named: Arlington, Bellevue (formerly part of the Jamaica Plain central office), Belmont, Hyde Park, Melrose, Milton, Newton North, Newton South, Quincy and Winchester. The new rates were also made to count all messages within the radius as applying on the guarantee on the measured rate schedule, and hence these messages now cost three cents after a zone measured rate telephone has used its guaranteed number of calls. The reduction brought

about by the recommendation of the Commission for the latter messages during the last five years is therefore seventy per cent. of the original price.

The total number of messages transmitted in 1906 in unlimited service, measured service and the ten cent toll service between Boston and the sixteen exchanges within the five mile radius was reported in our report of March 10, 1908. Considerable of this traffic was in unlimited service which then was available for the undivided Boston and Suburban District. Table No. 1 gives the data of that time and the data of corresponding traffic at the present time. At the present time all such traffic is charged for either in measured service or as a toll charge in zone unlimited service, there now being no unlimited service which crosses the border between the Central District and the Suburban District. It is to be observed from Table No. 1 that this traffic has now increased to nearly double what it was in the year 1906. These messages are now charged for either as measured or toll service at 3 cents or 5 cents each. The telephone company has been able to more efficiently utilize the interconnecting trunk lines over which this traffic goes between central offices on account of the denser traffic to be handled as a consequence of the increase in messages which has occurred.

II. Inventory and Appraisal of Telephone Company's Property.

In March, 1908, following the delivery of our 1908 report, we were directed by your Honorable Commission to proceed with an inventory and appraisal of the property of the New England Telephone & Telegraph Company. The results of this extensive undertaking were reported to you under date of March 27, 1909. We were directed by the Commission to make a complete inventory and appraisal of the company's property in Massachusetts, and to make such a valuation of the company's property in other states as would make it practicable to proportion the total value as inside of Massachusetts and outside of Massachusetts. After the work of inventorying was in progress in Massachusetts, the company undertook to make an equally detailed inventory in the other states, and after checking this inventory we utilized the data thereof for estimating the value of the properties outside of Massachusetts.

The extent of the company's physical property then in the Commonwealth of Massachusetts compared with the extent of its property now in the Commonwealth is shown in Table No. 2 appended to this report. The growth of the property in length of aerial conductors, underground conduits and underground and submarine conductors has increased more rapidly in proportion than the number of telephones, which is partially accounted for by the rapid diminution of four, six and eight-party lines in the Boston and Suburban District, and of six, eight and ten party lines in the rest of the state, which has resulted from the readjustments of the rates. Table No. 3 of this report shows the numbers of subscribers to three, four and six-party lines, exclusive of coin boxes, in the Boston and

Suburban District in November, 1907, and the corresponding numbers on September 24, 1910 and April 30, 1913. This table shows that the three-party service, which was a measured rate all-round suburban service, had 1,451 subscribers in November, 1907; that this number had fallen to 682 on September 24, 1910, and that the service had entirely disappeared before April, 1913. This class of service had not been open to new subscribers for some years previous to 1907. The table also shows, as does Chart No. 6, that the number of subscribers to four-party line service, which is residence unlimited all-round suburban service, increased from a little more than 13,000 in 1907 to more than 25,000 in the fall of 1910 and has now fallen to less than 10,000. The table also shows that the six-party line service has lost in number of subscribers from 7,152 in 1907 to 2,866 in April of 1913.

As a consequence of the changes in plant required to meet the conditions of improved service and increasing growth of telephones accompanying the revised rates, the telephone company has expended many million dollars in permanently improving and extending its plant since the appraisal was made.

III. Revised Rates for Boston and Suburban District.

In accordance with your instructions transmitted to us at the opening of 1909, we studied the then existing rates in the Boston and Suburban District, and under date of February 14, 1910, presented to you an extended statistical report thereon with plans for changes of rates. After public hearings your Honorable Commission recommended a set of new rates for the Boston and Suburban District (now called the Metropolitan District) by a communication dated August 23, 1910, addressed to the President and Board of Directors of the New England Telephone & Telegraph Company. The communication was accompanied by full tables of the charges in the several classes of service. These rates were put into effect by the company following your recommendations.

The modified rates were designed to establish a system of telephone rates that are reasonable, are equitably laid on the different classes of service, and at the same time bring to the operating company a revenue which will enable it to adequately carry on its legitimate business. For this purpose it was necessary to divide the Boston and Suburban District into zones; and this made it practicable to provide that measured rate subscribers need not pay more than five cents per local message with a provision of minimum annual payments, and messages in excess of the minimum guaranteed number would be paid for at a lower rate, which was set for the time being at 3 cents each. This latter figure is still open to readjustment, and should receive further attention after the company has completed the plant changes and extensions imposed on it by the new rates. With each zone made small enough in such a rate system, the disparity of use existing between the various flat rate users getting unlimited service within their zones may be relatively small and unlimited

service rates may then be offered for local residence service (and even for business service) although these rates should be different in zones of different sizes and character, being adjusted with due regard to getting a fair return to the company out of the rates and doing this without either discouraging small users or giving the service to large users at a price so low as to cause unfair discrimination.

Observations of the traffic over 1-B (one-party business unlimited zone) lines on the Fort Hill central office during 1912 showed that the number of calls originated per line varied from a maximum of approximately 23,250 per annum to a minimum of approximately 150 per annum. These records also showed that approximately $2\frac{1}{4}$ per cent. of the 1-B subscribers originate 18,000 or more calls per annum and that approximately $11\frac{1}{2}$ per cent. of the subscribers to this class of service originate 10,000 or more calls per annum. Corresponding observations taken on the A service (one-party business unlimited service over the entire Metropolitan District) before the abolition of that service and the introduction of the new rates, showed that the maximum calling rate was more than 50,000 calls per annum, that approximately 5 per cent. of the A subscribers originated 18,000 or more calls per annum, and that approximately 25 per cent. of the subscribers originated 10,000 or more calls per annum. The average annual calling rate per station for all 1-B subscribers in the Central District is approximately 5,650 as compared with 7,950 for the old class A subscribers in the Central District. The foregoing figures indicate clearly that the new system of restricted zones for unlimited business service has resulted in a reduction of abuse of the service by very large users, and has diminished the disparity in the amount of service received by different subscribers to the same class of service. The reduction of the excessive use of the lines has also undoubtedly resulted in an improvement in the quality of the service.

The plan as worked out divides the Boston and Suburban District into zones as follows:—

(a) The seven Central exchanges, — Main, Fort Hill, Oxford, Tremont, Back Bay, Haymarket and Richmond, comprising one zone.

(b) Each central office in the Suburban District comprising the center of a zone which consists of the exchange district locally served by that central office plus exchange districts in the suburban territory contiguous thereto.

This provides a number of suburban zones equal to the number of the then existing suburban central offices, and the neighboring zones are caused to overlap each other so that neighboring suburban subscribers can always communicate with each other without paying a toll charge.

The local zone rates are classed in five grades fixed by the extent of the zone service. One grade includes the Central zone of seven exchanges. Another, called Grade H, includes suburban zones which in January, 1910, had more than 10,000 main stations. Another, called Grade G, includes suburban zones then with between 5,000 and 10,000 main sta-

tions. Another, called Grade F, includes suburban zones then with between 2,500 and 5,000 main stations. The fifth, called Grade E, includes exchanges then with less than 2,500 main stations. For the Grade H zones the maximum number of main stations now in any zone (as of April 30, 1913) is 31,009 and the minimum number in any zone is 14,354; for Grade G zones the maximum is 13,253 and the minimum 6,358; for Grade F zones the maximum is 7,083 and the minimum 3,737; and for Grade E zones the maximum is 2,855 and the minimum 1,096. Tables Nos. 4, 5, 6 and 7 show the number of main stations in each zone of Grades H, G, F and E, respectively, as of April 30, 1913, compared with the number of main stations in the zone as of January 29, 1910, and the percentage increase in the number of main stations in the interval.

The toll charges between zones were made so that they would fit satisfactorily with requirements of toll service to points throughout the state.

The plan also proposed abolishing the multi-party lines with the exception of four-party coin-box telephones, for the purpose of improving the general character of the service regarding which there had been a good deal of protest on account of its being unsatisfactory.

The results accomplished by the rates are indicated by the growth in numbers of telephones referred to at the opening of this report.

These rates also included extending the five cent toll radius around Central Boston to eight miles. This is sixty per cent. farther than the five miles fixed as a preliminary adjustment in 1908. All five cent message charges for messages from measured rate telephones were included in the yearly minimum guarantee of measured rate messages. At the same time the measured rate service covering the entire Metropolitan District was maintained and the ten cent tolls crossing the outer border of the Suburban District were reduced to 5 cents for distances not exceeding five miles.

The system of rates introduced was recommended as being flexible and subject to modification without the disturbances due to the old form of rates, and also as characteristically planned to encourage measured rates and to eliminate the burden of unnecessary charges on the smaller users. These rates abolished the class of business service good for unlimited use over the entire territory and introduced in the place thereof unlimited service in zones comprising the Central District of seven central offices and each Suburban exchange with its contiguous suburban central offices within the District. The measured rate telephones were fixed to receive service within a radius of eight miles for 5 cents per message up to the guaranteed minimum yearly sum, and 3 cents per message for additional messages, with an additional charge for messages extending beyond eight miles.

The original rates contemplated abolishing the so-called S and T service, namely, unlimited service within the suburban part of the district for residences on six-party and four-party lines, but the period during which old subscribers to those classes may retain the service has been ex-

tended from time to time. The number of subscribers in these classes is falling off and there are now 12,668 subscribers in the multi-party (six-party and four-party) unlimited service as compared with 20,335 subscribers when this investigation began and as compared with 30,271 subscribers at the time the new rates were put into effect. Chart No. 6, which is referred to later, shows the changes of the S and T service. This chart shows that the number of subscribers receiving service from the S lines with six-party unlimited total suburban service has been decreasing year by year throughout the period covered by the chart. This service has not been offered to new subscribers for a number of years, but old subscribers have been allowed to continue the service; the result has been a gradual decrease in the number of subscribers receiving this class of service. It will be observed that in the latter part of 1910, the time at which the new rates were offered to the public, the rate of decrease in the number of S subscribers became somewhat more rapid for a period. This seems to indicate that a portion of the S subscribers preferred to change to some one of the new classes of service. This chart also shows that the number of subscribers to T service (four-party unlimited total suburban service) increased rapidly and steadily from 1905 until September, 1910, when it exceeded 25,000. At this time the new rates were offered and since then no new subscribers to the T service have been accepted. The chart shows that the number of subscribers to the T service has decreased rapidly since September, 1910, until the number in service at the end of April, 1913, was less than 10,000, or less than 40 per cent. of the number in service at the time the new rates were put into effect. This rapid decrease indicates clearly that the new rates have proved a benefit to large numbers of people formerly having the old T service.

With the new rates, with an exception of four-party coin-box telephones, the maximum number of parties on a line within the Metropolitan District was planned to be two, and these were to be afforded divided ringing, so that neither subscriber should be annoyed by the signals made for calling the other subscriber, all of which has been accomplished for the service except for the 12,668 S and T subscribers still remaining.

Shortly after the promulgation of the new rates, one-party and two-party line, full suburban unlimited residence service was added at the price of \$45 per year for the one-party and \$36 per year for the two-party. This service corresponded in scope to the J and K service previously in force at \$54 and \$42 respectively, per year. The favorite residence classes of service are charted together on Chart No. 6 appended to this report, which shows the growth in each class. The chart shows that from December, 1904, until December, 1909, there was a slow but steady annual increase in the number of subscribers to the J and K service. Between December, 1909, and December, 1910, however, the number of subscribers in each of these classes of service decreased. This is probably due to the fact that a portion of the subscribers in these classes of service

changed over to some one of the new rates offered in the fall of 1910. The original plan with the new rates was to discontinue all of the total suburban residence service (J, K, T and S) and for a time after the new rates went into effect no new subscribers for all-round suburban service were accepted. Early in 1911, however, your Honorable Commission decided to continue the one-party and two-party total suburban residence service at \$45 and \$36 respectively. These services correspond to the J and K services under the old system of rates, but the new prices are lower than the old. The effect of the introduction of these lower rates is clearly shown by the chart. The one-party full suburban service, marked 1-Sub. on the chart, which corresponds with the old J service, shows a substantial increase in the number of subscribers, and the two-party full suburban service, marked 2-Sub. on the chart, which corresponds with the old K service, shows a marked increase in the number of subscribers. The number of subscribers to the K service in December, 1910, was a little more than 1,000, whereas the number of subscribers to the two-party full suburban residence service at the end of November, 1912, was more than 6,000.

The new rates required much additional plant construction to be installed by the telephone company, on account of the fact that it was necessary to supply additional lines and switchboards for the purpose of changing the multi-party lines to two-party lines and single-party lines as the old subscribers changed their service; and the new rates also stimulated an extra rate of growth in the number of subscribers and thereby created a need for additional plant.

Table No. 8 appended hereto gives a comparison of the numbers of main stations in each of the central office divisions of the Metropolitan District (formerly called the Boston and Suburban District) as of January 29, 1910, and as of April 30, 1913. The estimated population in each of the Central office divisions for each of the dates is also given in this table, and the telephone development of the territory measured by the number of main stations per hundred inhabitants is set down. The total telephone development, i.e., the number of main stations per hundred inhabitants, was 6.4 per cent. at the opening of 1910, and on April 30, 1913, it had been changed to 8.1 per cent. Counting total telephones instead of main stations (in which total telephones include private branch terminal telephones and extension telephones) the figures are respectively 9.0 telephones per hundred inhabitants in the Boston and Suburban District at the opening of 1910, and 11.3 telephones per hundred inhabitants in the same territory at the end of April, 1913. The table shows that the main stations per hundred inhabitants has grown in every one of the Central office divisions of the Boston and Suburban District. Attention is particularly called to the notable growth in Arlington, Brighton, Cohasset, Hingham, Hull, Milton, Reading and Wellesley. It will be observed that the estimated population for 1913 is less than the estimated population for 1910 in Chelsea, Cohasset, Hingham, Milton, Randolph

and Wellesley. The estimates of the population in 1910 were based on the 1900 census reports and it is evident that the rate of growth in these districts was over-estimated. The estimated populations for 1913 are based on the census reports of 1910. The apparent increase in development in Cohasset and Wellesley would not be so great if the estimate of the population in these two areas in 1910 had been more accurate, but even making allowance for this, the increase in development in these two areas is notable.

The average number of main stations per 100 inhabitants for all of the central office districts in Grade H in April, 1913, was 7.0 and the corresponding figures for the Central office districts in Grades G, F and E were 7.2, 5.4 and 9.1 respectively. The average number of main stations per 100 inhabitants for the Grade E central offices showed an increase of 52 per cent. over the average number of main stations per 100 inhabitants for the same central offices in January, 1910, and the increases shown by the central offices in Grades H and F were each 35 per cent. The number of main stations per 100 inhabitants for the central offices in Grade G showed a somewhat less percentage increase, probably owing to the fact that the telephone development in these central office districts was relatively high in 1910.

Tables Nos. 4, 5, 6 and 7 give comparisons of the numbers of main stations in the exchange zones of Grades H, G, F and E, respectively, for January, 1910, and April, 1913, and show also the percentage increase in the number of main stations in each exchange zone during that period. These tables show clearly the remarkable growth in the number of main stations since the introduction of the revised rates. The Newton West zone in Grade G and the Needham zone in Grade F show the minimum increase during the period, namely, 33 per cent. and the maximum increase is shown by the Weymouth zone in Grade F with an increase of 67 per cent.

The remarkable growth in the telephone development shows that the new rates have served an important want in the community. The relation of the rate of growth before and after the change in the rates is shown on Chart No. 1 appended to this report, which gives the total number of telephone stations in the Boston and Suburban District beginning with December, 1904, and coming to the end of May, 1913. This chart shows the total number of telephones in the entire Metropolitan District by curves, and also curves are given showing the number of telephones separately for the Central District and the Suburban territory. It will be observed that the curves make a deflection upwards beginning about 1910, thus showing the greater rate of growth of telephones in the territory after the new rates were put in effect. The data for this chart for the period from December, 1904, to December, 1912, are given in Table No. 9, in which is also given the increase in the number of telephones for each year. The annual accession of telephones is shown by this table to have largely increased since the establishment of the new rates.

One object of the new rates was to prevent large unlimited service

users from obtaining their service below cost and to relieve the smaller users from the undue price thereby imposed upon them. Under the old rates a considerable number of subscribers to unlimited service were obtaining their messages throughout the Boston and Suburban District for less than 2 cents apiece and some were obtaining their messages for less than one cent apiece, which is manifestly below the cost to the company, and the deficit was being made up by the smaller measured rate subscribers.

Chart No. 2 appended hereto shows the price per message under the old rates paid for Boston and Suburban service by the users in the important classes of service other than private branch exchange and pay station service, the prices being estimated from the traffic counts of 1909 and the company's monthly peg counts. It will be observed from this chart that the average price paid per message from Class A telephones in Central Boston, for unlimited service over the entire 436 square miles of the Boston and Suburban District comprising the City of Boston and forty cities and towns surrounding it, averaged only about 2 cents per message. Many subscribers in this class received their service for less than one cent per message. The chart also shows that the subscribers in a large number of the classes of service paid over 6 cents per message and those in five classes of service paid over 7 cents per message.

Chart No. 3 is a chart giving the average prices paid per message under the new rates in the Boston and Suburban District, the data being obtained from the traffic count of 1912 hereinafter described. This chart includes all messages whether terminating within or without the zone of the originating subscribers' telephones, and therefore shows the total average price paid for the messages in each class. The chart covers all of the classes of subscribers' service other than private branch exchanges and pay station service with the exception of one class which contains seven subscribers, and which therefore has too few subscribers to give a reasonable average. This is the two-party residence class in the Central zone, and the class apparently might be abolished without hardship. The two-party measured rate service would apparently give a lower price to these subscribers and they ought to be transferred thereto in case they are willing.

Of the various classes of service shown on Chart No. 3, it will be observed that the subscribers in eight of them receive their service for an average of between two and three cents a message; one between three and four cents a message; eight of them between four and five cents a message; one at substantially five cents a message; and eight at more than five cents a message. The last eight classes included 18,652 telephones at the end of 1912. These contrast with eighteen classes including 34,271 telephones which were paying more than five cents a message at the end of 1909 as shown by Chart No. 2. These charts clearly indicate the improvement in the condition of the smaller users in respect to the price per message.

The four-party business coin-box service in the Central District shows an abnormally high price per message, namely, over 8.5 cents, and these subscribers are not nearly approaching the guaranteed use which would enable them to get local messages at 5 cents apiece. We have not had an opportunity to investigate the reason for the relatively low calling rate and consequent high price per message for these subscribers, but it is the service with the lowest guaranteed price per annum for business telephone service in the Central District, and it may be that such telephones are put in by some of the subscribers for the purpose of emergency insurance in places where the daily message service is very small. Of the former four-party coin-box users in the Central District, it may be presumed that many have now taken the two-party line measured rate service.

As already said, these charts do not include private branch exchange service, nor pay station service and one-party coin-box service which corresponds thereto.

The growth of the various classes of service, which indicates the relative popularity of the classes, is shown by Charts Nos. 4 to 7, inclusive. Chart No. 4 is for the unlimited zone services. This shows that there is a good demand for one-party business unlimited zone service and for two-party residence unlimited zone service, but there is practically no demand for two-party business unlimited zone service and only comparatively little demand for one-party residence unlimited zone service. Chart No. 5 is for the measured zone services and four-party coin-box services. This chart shows that all of these services have enjoyed good growth but that the two-party residence measured zone service has proved particularly attractive to subscribers. The chart also shows that the demand for one-party residence measured zone service is comparatively small as compared with the demand for two-party residence measured service, and that the demand for one-party business measured zone service greatly exceeds the demand for two-party business measured zone service. Chart No. 6 is for the one-party and two-party residence all-round suburban services and the S and T, six-party and four-party, residence all-round suburban services. This chart shows that the one-party and two-party residence all-round suburban services (marked 1-Sub. and 2-Sub. on the chart) have both shown an increase since the introduction of the revised rates for the services early in 1911, but that here again the two-party service has been in much greater demand than the one-party service. The S, or six-party residence all-round suburban service has shown a comparatively steady falling off in numbers during the period covered by the chart, except that the decrease became a little more rapid in the latter part of 1910 when the revised rates were offered to subscribers. This service has not been open to new subscribers during the period covered by the chart. The chart also shows that the T or four-party residence all-round suburban service had a rapid increase up until the time of the introduction of the new rates (since which time the

service has not been available to new subscribers) and that since that time the decrease in the number of subscribers has been rapid. A line representing the growth of the 2 MR, two-party residence measured zone service, is dotted on the chart for purposes of comparison. It will be observed that the rate of growth of this two-party measured zone service has greatly exceeded the rate of growth of the four-party unlimited all-round suburban service, having attained a total of approximately 25,000 subscribers in about one-half the time taken by the T service to reach that number of subscribers. Chart No. 7 is for the private branch exchange service, which is a measured service, and the measured rate MZB and MZR (one-party) services at one rate over the entire Metropolitan District. The chart shows that the private branch exchange service has proved popular and that the rate of increase has been somewhat more rapid since the introduction of the revised rate schedule during the latter part of 1910. The curve representing the all-Metropolitan measured service shows that the number of subscribers to this service is decreasing in spite of the fact that the service is still offered to subscribers. There was a small increase in the number about the middle of 1911, but the gradual decrease since that time seems to indicate clearly that the subscribers are finding it advantageous to change over to some one of the new rates offered for zone or district service.

In connection with our study of rates for the Boston and Suburban District, we gathered numerous data of the telephone rates in many American cities and also of the British and continental European telephone rates. These showed that the new Boston rates were low compared with those of most of the American cities, and that European rates are not comparable on account of the great disparity of wages. We also placed in your hands memoranda showing the way in which we estimated the scales for the new rates in the effort to obtain the lowest practicable prices for the small users and yet include the necessary operating expenses of the company and interest and depreciation on its property.

Following the introduction of the new rates in the Boston and Suburban District, we kept at your request a close statistical record for many months, and during this period found that the average prices per telephone paid by the subscribers during the years succeeding the introduction of the new rates fell off compared with the prices per telephone in the years previous to the introduction of the new rates, and that this falling off for the twelve months was characteristic of all of the central office units within the District. Our original estimates indicated that the reduction in the gross revenue of the company for the number of telephones in service in 1910 which would be caused by the new rates would be approximately \$300,000 for twelve months, when the new rates were fully in effect. This has been substantially supported by the statistics which we now have. For instance, the average price paid per telephone in the Suburban District was over \$3.50 less per telephone for the year 1911, and also for the year 1912, as compared with the year 1910. The average

numbers of telephones in the Suburban District in 1910 and 1912 were, respectively, 69,113 and 88,295. Similarly, the average price paid per telephone in the Central District (in which there were 51,119 telephones in 1910 and 59,658 telephones in 1912) decreased \$1.30 in 1912 as compared with 1910. The 1911 statistics for the Central District are not indicative on account of the fact that the changes of the Boston and Suburban unlimited, or A, service had not been completed.

The rates have fulfilled the anticipation, when opportunity has arisen, of being flexible and capable of modification without disturbing their general plan. Several such modifications have been made. Thus, on January 1, 1912, the previously referred to modification which extended the benefit of the three-cent price of excess messages for measured rate telephones up to the full eight mile radius was put into effect.

IV. Traffic Count of 1912.

In order to determine whether further improvements could be made in the rates, it became necessary to make a careful traffic count similar to the traffic count which the company had previously made at their own instance in 1908 and 1909, but of the detail and summary results of which we had been given possession. A new traffic count was therefore begun by the telephone company in December, 1911, at the request of your Honorable Commission and with our supervision as your representatives. The primary purpose of the record was to obtain for each class of service in each of the central offices in the Metropolitan District the average annual calling rate in messages per telephone and the destination among the central offices of the messages which terminate within the limits of the district. In this instance the seven central offices in the Central District are treated as a single unit. This traffic count continued through the greater part of 1912. Three complete rounds of observations were made in each exchange with intervals of about three months between, the traffic being counted from midnight to midnight on normal days and also on Saturdays, Sundays and holidays, the number of records made and the dates of the observations depending upon the local conditions in each central office. In making these records care was exercised to include at least one central office from each grade in each month's observations. Well distributed records were also taken of the traffic on Saturdays and Sundays and on each holiday during the period in which the special traffic record was in progress in order to determine the relation between the traffic on these days and on normal days in central offices of each grade. Sufficient data were obtained during these observations to show the distribution of messages and the average toll calling rate for each class of service. Care was taken so that the records were not made when unusual conditions or known disturbing factors existed. That is, every effort was made to get records of the normal use of the telephones. The organization of the telephone company for carrying on such special investigations

in respect to the service is admirable and the effort to make the tests complete worked out smoothly.

All of the traffic originating and terminating within the Metropolitan District may be classed as follows: (1) flat rate and coin-box messages, of which no continuous record is ordinarily kept; (2) measured rate messages upon which the regular record of messages within the eight mile radius is only of numbers of messages and does not note the exchange to which the messages go; (3) local toll messages, that is, messages going beyond the eight mile radius for measured service and the zone for unlimited zone service, which are recorded in considerable detail; and (4) pay station messages, which are mostly recorded in considerable detail. In making the special record, the regular ticket or meter records, or any part of them which were available, were utilized as far as they would go and special tickets were used for the counts made by the special observers to complete the information.

The general plan and the methods employed in obtaining this special traffic record of 1912 were superior to the methods employed in the previous special records made by the company, and the data obtained may, therefore, be considered more accurate than any of the data previously used in the estimates which we have made. It must be remembered that in any such records the annual traffic per station can be obtained only by applying ratios to the averages of the various days in which the counts were made, but careful ratios were worked out in this case by the study of the normal days compared with the Saturdays, Sundays and holidays, and a study of the seasonal variation of calling was accomplished by means of the measured service, pay station and pre-payment station service records of previous dates.

In this sort of work a great deal of computing must be done, and this was carried out by the telephone company from the original tickets, in most instances computing machines being used for the computations. The work has been constantly subject to our supervision and check.

We have compared our estimates of probable traffic under the new rates which were made at the time the new rates were proposed, with the records of traffic shown by the traffic count of 1912, and we find a reasonably close correspondence. Thus in the Central District the traffic for the unlimited service telephones comes out fourteen millions of messages per annum against sixteen millions by estimate, and the traffic for the district measured rate telephones comes out seventeen millions of messages per annum against seventeen and a half millions by estimate. The four-party coin-box telephones in the same district have used on the average less than two-thirds the number of messages provided within the guaranteed minimum payment, while the estimate was made on the basis of a number of messages at least equal to the number corresponding with the minimum guaranteed payment. The difference in this service comes to one and a third million messages in a total of three and two-third millions

estimated. In the case of the suburban territory the four-party coin-box telephones aggregated four and a fifth millions of messages against four millions by estimate. The unlimited zone service aggregated fifteen and a half millions of messages against thirteen millions by estimate, and the district measured service in the suburbs aggregated twenty-three millions of messages against thirty millions by estimate. The difference between the estimated number of messages and the actual number for the measured service in the suburbs seems to be due to the very great popularity of the two-party residence measured rate service in which on April 30, 1913, there were 25,160 telephones, with a minimum guarantee of 480 messages for \$24 per year. There is an average use of 520 messages originated per telephone per year by these telephones. The difference is more than made up by the number of messages in the one and two-party suburban telephone service, which was introduced into the rate classification after our estimates of message rates were made and in the remaining S and T unlimited service which in our estimates were assumed to be excluded. A good part of the telephones in these classes would normally take the measured service, and would probably raise the average use of those telephones.

Just before the introduction of the new rates approximately 14.7 per cent. of the annual traffic originated from private branch exchange telephones and the remaining 85.3 per cent. originated from other telephones. At the end of 1912 approximately 20.1 per cent. of the messages originated from private branch exchange telephones and the remaining 79.9 per cent. from the other telephones. This increase of the proportion of private branch exchange traffic is doubtless partly due to the fact that the old unlimited Boston and Suburban service users (Class A users) in many instances changed to private branch exchanges under the new rates, and the rate of use per telephone in private branch exchanges was thereby slightly increased. This is a measured class of service.

Comparing the average price per message paid by the principal classes of unlimited service with the average price per message paid by the principal classes of measured service under the old rates, the unlimited services in Central Boston and the Suburbs averaged about $2\frac{1}{2}$ cents per message, and the measured services averaged about $6\frac{1}{2}$ cents per message. The new rates have distinctly reduced this diversity in the price per message, although there are still some 13,000 four and six-party unlimited service stations in the Suburban District. The present revenue from the unlimited services including local toll charges for messages to central offices within the Boston and Suburban District is about 2.8 cents per message, while the average revenue from the principal measured services is less than 4.9 cents per message.

The traffic count shows plainly the appropriateness of the graduated charges for the unlimited zone service by which the annual charge for service is higher in the zones of higher grades. Thus, for instance, the one-party business telephones show a consistent increase in the traffic

for the higher grades, being lowest in the E grade, higher in the F grade, higher again in the G grade, again higher in the H grade, and highest in Central. In general, similar variations are found also in the other zone telephones whether of unlimited service within the zone or of measured rate services; but this characteristic variation is not found in the case of the telephones which have access at a single rate over the entire territory, such as the measured rate MZ telephones. Nor is it characteristically shown by the all-round suburban unlimited service, such as the four-party T service or the six-party S service, namely, unlimited residence service which is good over the entire Suburban area, which show no such direct variation of traffic with the location of the originating telephones.

It appears from the data that any further adjustments in the way of reductions of rates, if the revenue of the company comes to the point where, in the view of the Commission, reductions can be made, should primarily be made in the direction of reducing the prices where large numbers of excess messages are utilized in connection with measured rate service, and in the direction of increasing the radius for which 5 cents will carry a message over the highly used inter-connecting trunk circuits which run radially into and out of Boston to connect the Suburban central offices with the Central District.

In connection with this traffic count we have endeavored to secure data to determine the annual number of messages transmitted on the average over the interconnecting trunk circuits between central offices in the Boston and Suburban area, and the average distances over which communications are carried on through those trunk circuits. These data should be of service in ascertaining whether or not the present 5 cent radius is as large as it may appropriately be made; but we have not yet received from the telephone company the statistics necessary for the purpose.

V. Short Distance Toll Rates throughout the Commonwealth.

In addition to the Boston and Suburban rates, a modification of the short distance toll rates over the whole of the State of Massachusetts was put into effect by the company in January, 1911, with the approval of the Commission, so that charges for five-minute toll messages between central offices within a distance of five miles from each other should not be greater than five cents. At the time this reduction was put into effect it affected over 390 exchanges and call offices from which calls to adjoining places less than five miles away had theretofore been charged for at the rate of 10 cents per message. A general introduction of two-number rates also went into effect for the toll territory in the State of Massachusetts. Changes have also been made in the night rate privileges.

VI. Exchange Rates throughout the Commonwealth.

During the course of 1911 the telephone company with the approval of the Commission put improved exchange rates into effect throughout the state. These rates had in view the reduction of the number of multi-party lines carrying large numbers of parties per line, and the simplification of the service, in addition to reducing the prices paid by subscribers. The exchanges in the various cities were grouped for the purpose of fixing the rates. In Massachusetts the exchanges included eight groups proposed by the telephone company as follows:—

Group No. 1.—Springfield and Indian Orchard, conjointly, and Worcester, making two places in Massachusetts in the group.

Group No. 2.—Fall River, Lawrence, Lowell, Lynn and New Bedford, making five Massachusetts places in the group.

Group No. 3.—Brockton, Fitchburg, Haverhill, Holyoke, Salem and Taunton, making six Massachusetts places in the group.

Group No. 4.—Pittsfield, making one Massachusetts place in the group.

Group No. 5.—Beverly, Gloucester, North Adams and Northampton, making four Massachusetts places in the group.

Group No. 6.—Chicopee, Clinton, Gardner, Leominster, Marlborough, Newburyport, South Framingham and Westfield, making eight Massachusetts places in the group.

Group No. 7.—Adams, Amesbury, Amherst, Andover, Athol, Bridgewater, Concord, Danvers, Easthampton, Franklin, Great Barrington, Greenfield, Hudson, Lee, Mansfield, Marblehead, Martha's Vineyard, Middleboro, Milford, Nantucket, Natick, North Brookfield, Orange, Palmer, Peabody, Plymouth, Rockland, Saugus, Southbridge, Spencer, Stoughton, Walpole, Ware, Webster, Westboro, Whitman and Winchendon, making thirty-seven Massachusetts places in the group.

Group No. 8.—Dalton, Falmouth, Hanover, Housatonic, Lenox, Magnolia, Manchester, Medfield, Millbury, North Easton, Provincetown, Sagamore, Sharon, Stockbridge, Turners Falls, Williamstown, Wrentham and 116 smaller exchanges, making one hundred and thirty-three Massachusetts places in the group.

The foregoing grouping was made for the purpose of introducing rates which approximate as closely as practicable the requirements of the various parts of the very diverse telephone territory in the State of Massachusetts, and the grouping was based largely upon the telephone development in the various places. The groups were ultimately extended over the whole of the company's territory, including the three states to the north as well as the State of Massachusetts. At the time the grouping was made the average number of telephones per central office or central office district in Group No. 1 was 12,532, in Group No. 2 was 5,990 per central office, in Group No. 3 was 3,299 per central office, in Group No. 4 was 4,254 per central office, in Group No. 5 was 1,821 per central office, in

Group No. 6 was 1,327 per central office, in Group No. 7 was 548 per central office, and in Group No. 8 was 122 per central office. We have not followed up these statistics to see what changes have occurred in the two years during which these rates have been in effect. The rates are of notably simple character as compared with the rates which they replaced, and they contrast favorably in regard to the service given for the money charged. In all these groups unlimited business and residence service within the exchange is given, but it will be observed that the largest group averaged only 12,532 telephones per central office or central office district, and the unlimited service is consequently practicable. Business unlimited service is confined to single-party lines in the first two groups. In the other groups, two-party lines are allowed for business, and in Group No. 8, which is composed of very small central offices, four-party lines are allowed for business. In the last five groups, six-party lines are allowed for residences. These classifications are practicable in view of the different sizes of the various central offices.

These improved rates made obsolete the old six-party service of the company in the larger places outside of the Boston and Suburban District, and the old ten-party service in smaller places, which service had been notably poor, as will be almost inevitable with so many parties on city and village lines. The change was effected without injuriously affecting the subscribers' privileges, and the lowered rates gave the subscribers throughout the state a decided advantage by the new arrangement.

VII. Increase of Telephones in Massachusetts.

The growth of the number of telephones in the Metropolitan District has already been described, and the data given in Chart No. 1 and Table No. 9. The growth in the State of Massachusetts outside of the Metropolitan District is shown in Table No. 10, and the growth of the total number of telephones in the state is shown in Table No. 11. These data of growth in Massachusetts are jointly for the New England Telephone & Telegraph Company and its subsidiary the Southern Massachusetts Telephone Company. The annual growth (amounting to an accession of 29,397 telephones in 1912) is sufficient to command the equivalent of the installation every year of at least two of the largest switchboards which are usually installed, but being distributed throughout the state the growth results in the gradual extension of numerous existing switchboards rather than of the construction of a few very large boards. It also results in the gradual addition to the number of central offices, as it becomes economical and desirable to divide exchange districts on account of the increasing number of telephones therein. Thus, for instance, during the year 1912, three new central offices were added to the system, namely, Bellevue as a division from the Jamaica Plain central office, Burlington (which had previously been served from Woburn, but as a separate central office with distinct rates which did not include service in the Boston and Suburban District), and Manomet (which had previously

been served from the Plymouth central office), while the City of Worcester, which had previously been served by one central office, is now being arranged to be served by two, which are called, respectively, Park and Cedar. Also, during the summer season of 1912, a central office was maintained at Wood's Hole. The growth of the year 1912, which is continuing in the year 1913, is illustrative. The company is, therefore, under very heavy requirements for increasing plant. It will be observed in Table No. 2, which gives a comparison of the physical plant in Massachusetts in 1908 and 1913, that there were 247 central offices in 1908 and 256 on June 1, 1913, which figures include certain instances of two exchanges under one roof served from substantially the same switchboard. The increase shown is the net increase. A larger number of new offices were opened during the interval, but certain others were closed by consolidating neighboring offices.

As pointed out on Page 1, the main stations in the Metropolitan District increased 64.2 per cent. in five and one-third years ending last April, and the total telephones in the same District increased 67.5 per cent. during the same period. The official returns of financial results are made to your Honorable Commission by the company by years ending June 30, and the data for the year ending June 30, 1913, are not yet available; but the returns show that for the four years ending June 30, 1912, the company's revenue from Massachusetts increased 37.8 per cent. and its Massachusetts operating expenses and taxes increased 40.2 per cent. During the same period the number of telephones increased just over fifty per cent. We do not have the figures for plant investment in Massachusetts separately in 1912, and therefore cannot make a direct comparison of the increase of the investment without additional investigation, but the length of conductors, length of conduits, and certain other expensive parts of plant have increased in greater ratio than the number of telephones, but the number of central office switchboards has not increased so rapidly.

VIII. Our Work in Hand during 1913.

During the early part of this year we have had in hand on your behalf work relating to the computation of the 1912 traffic count; also certain studies of the costs of service, and questions of the five-cent radius about Boston. Of the latter two points the data requisite have not yet been completed.

We have also had under consideration a test of the accuracy of the metering and counting of the traffic on measured service lines in the Metropolitan District. We gave you under date of April 25, 1913, a preliminary memorandum in regard to the standard methods utilized by the company in counting or metering measured messages; and also describing methods of testing the accuracy of such metering which are utilized by certain large companies in checking their own service, and by public service commissions as far as we have learned that the latter have

heretofore undertaken such work. The precedents for this work by public commissions are very meagre, and we outlined a plan of our own for proceeding with the test in Boston and its suburbs. The execution of the test was postponed on account of an impending strike of operators which at that time seemed imminent. Since the strike controversy between the operators and the telephone company has been settled, the transfer of the supervision of telephone rates and service from your Honorable Commission to the new Public Service Commission has been under contemplation, and therefore under your instructions we have not again taken this matter up for execution.

Respectfully submitted,

D. C. & WM. B. JACKSON.

TABLE 1. — *Trunked Traffic between the 16 Suburban Central Offices within the 5-mile Radius and the Central District 1906 and 1912.*

BETWEEN CENTRAL DISTRICT OFFICES AND —	TOTAL MESSAGES IN AND OUT.	
	1906.	1912.
Charlestown, ...	2,028,000	3,549,000
East Boston, ...	1,241,000	2,041,000
South Boston, ...	1,620,000	2,769,000
Cambridge, ...	4,243,000	7,286,000
Chelsea, ...	991,000	1,721,000
Roxbury, ...	3,523,000	7,837,000
Somerville, ...	1,752,000	3,929,000
Brookline, ...	3,116,000	4,967,000
Everett, ...	484,000	1,278,000
Dorchester, ...	2,245,000	5,278,000
Revere, ...	270,000	1,065,000
Winthrop, ...	410,000	1,474,000
Jamaica Plain and Bellevue, ...	1,540,000	3,046,000
Brighton, ...	747,000	1,604,000
Malden, ...	888,000	1,935,000
Medford, ...	343,000	1,024,000
Total of above, ...	25,441,000	50,793,000

TABLE 3. — Comparison of the Number of Main Stations, excluding Coin-box Stations, served from 3, 4 and 6-party Lines in November, 1907, September, 1910, and May, 1913.

CLASS OF SERVICE.	NUMBER OF MAIN STATIONS SERVED.		
	November, 1907.	September 24, 1910.	April 30, 1913.
3-party line, ¹	1,451	682	—
4-party line, ...	13,183	25,326	9,802
6-party line, ...	7,152	4,945	2,866
Total, ...	21,786	30,953	12,668

¹ Measured rate all-round suburban service.

TABLE 4. — Comparison of Numbers of Main Stations in Exchange Zones for the Years 1910 and 1913 and the Percentage Increase (Grade H).

EXCHANGE ZONE.	MAIN STATIONS.		
	January 29, 1910.	April 30, 1913.	Percentage Increase.
Arlington, ...	12,108	18,458	52
Belmont, ...	10,132	14,354	42
Brighton, ...	14,245	20,018	41
Brookline, ¹	21,658	31,009	43
Cambridge, ¹	18,966	27,586	45
Charlestown, ...	12,437	18,485	49
Dorchester, ...	16,215	24,797	53
Everett, ...	10,604	16,252	53
Jamaica Plain, ...	31,062	30,693	46
Medford, ...	11,884	17,665	49
Milton, ...	11,889	18,616	57
Newton North, ...	17,177	24,129	41
Newton South, ...	14,236	20,473	44
Roxbury, ...	18,250	26,888	47
Somerville, ...	12,578	18,701	49
South Boston, ...	10,857	16,037	48

¹ Revised zone.

TABLE 5. — *Comparison of Numbers of Main Stations in Exchange Zones for the Years 1910 and 1913 and the Percentage Increase (Grade G).*

EXCHANGE ZONE.	MAIN STATIONS.		
	January 29, 1910.	April 30, 1913.	Percentage Increase.
Dedham, ...	4,982	7,517	51
Hyde Park, ...	5,708	8,654	52
Lexington, ...	5,039	7,215	43
Malden, ...	6,342	9,597	51
Melrose, ...	5,531	7,988	44
Newton West, ...	6,499	8,669	33
Quincy, ...	8,377	13,253	58
Revere, ...	6,920	10,768	56
Stoneham, ...	5,342	7,615	43
Waltham, ...	6,225	8,537	37
Wellesley, ...	4,708	6,358	35

TABLE 6. — *Comparison of Numbers of Main Stations in Exchange Zones for the Years 1910 and 1913 and the Percentage Increase (Grade F).*

EXCHANGE ZONE.	MAIN STATIONS.		
	January 29, 1910.	April 30, 1913.	Percentage Increase.
Braintree, ...	3,629	5,988	65
Canton, ...	3,438	5,019	46
Chelsea, ...	4,433	7,083	60
East Boston, ...	4,451	6,997	57
Needham, ...	2,808	3,737	33
Randolph, ...	2,562	3,981	55
Wakefield, ...	2,614	3,775	44
Weymouth, ...	2,669	4,446	67
Winchester, ...	4,528	6,516	44
Winthrop, ...	2,670	4,285	61
Woburn, ...	2,824	3,843	36

TABLE 7. — *Comparison of Numbers of Main Stations in Exchange Zones for the Years 1910 and 1913 and the Percentage Increase (Grade E).*

EXCHANGE ZONE.	MAIN STATIONS.		
	January 29, 1910.	April 30, 1913.	Percentage Increase.
Cohasset, ...	690	1,096	59
Hingham, ...	1,127	1,813	61
Hull, ...	690	1,096	59
Lincoln, ...	2,049	2,855	39
Norwood, ...	1,138	1,540	35
Reading, ...	1,853	2,673	44

TABLE 8. — *Comparison of Telephone Development in the Central Office Divisions of the Metropolitan District for 1910 and 1913.*

CENTRAL OFFICE DISTRICTS.	DATA OF JANUARY 29, 1910.			DATA OF APRIL 30, 1913.		
	Main Stations January 29, 1910.	Esti- mated Popu- lation.	Main Stations per 100 Inhab- itants.	Main Stations April 30, 1913.	Esti- mated Popu- lation.	Main Stations per 100 Inhab- itants.
Central, ...	24,530	171,000	14.3	31,439	190,000	16.5
Arlington, ...	984	12,300	8.0	1,576	14,100	11.2
Belmont, ...	424	4,620	9.2	718	6,000	12.0
Braintree, ...	406	7,350	5.5	611	8,500	7.2
Brighton, ...	1,456	23,800	6.2	2,475	26,800	9.2
Brookline, ...	4,651	37,800	12.3	6,477	44,500	14.5
Cambridge, ...	4,712	103,000	4.6	6,572	108,000	6.1
Canton, ...	228	4,720	4.8	303	4,900	6.2
Charlestown, ...	810	40,000	2.0	1,141	41,700	2.7
Chelsea, ...	971	37,300	2.6	1,571	36,800	4.3
Cohasset, ...	198	3,400	5.8	290	2,800	11.1
Dedham, ...	608	10,400	5.8	772	11,100	7.0
Dorchester, ...	4,918	84,500	5.8	7,539	92,300	8.2
East Boston, ...	1,018	54,700	1.9	1,563	61,700	2.5
Everett, ...	1,081	32,300	3.4	1,796	35,400	5.1
Hingham, ...	361	5,620	6.4	534	5,000	10.7
Hull, ...	131	2,360	5.6	272	2,400	11.3
Hyde Park, ...	809	16,900	4.9	1,129	16,900	6.7

TABLE 8. — *Comparison of Telephone Development in the Central Office Divisions of the Metropolitan District for 1910 and 1913 — Concluded.*

CENTRAL OFFICE DISTRICTS.	DATA OF JANUARY 29, 1910.			DATA OF APRIL 30, 1913.		
	Main Stations January 29, 1910.	Estimated Population.	Main Stations per 100 Inhabitants.	Main Stations April 30, 1913.	Estimated Population.	Main Stations per 100 Inhabitants.
Jamaica Plain and Bellevue, .	2,742	48,400	5.7	4,374	57,600	7.6
Lexington, ...	523	6,080	8.6	707	6,500	10.9
Lincoln, ...	121	1,130	10.7	152	1,300	11.7
Malden, ...	2,198	41,000	5.4	3,116	47,300	6.6
Medford, ...	1,146	18,800	6.1	1,774	24,500	7.2
Melrose, ...	1,364	15,000	9.1	1,899	16,600	11.4
Milton, ...	1,331	22,600	5.8	2,076	22,200	9.3
Needham, ...	298	4,520	6.5	474	5,600	8.5
Newton North, ...	2,084	26,000	8.0	2,785	28,000	9.9
Newton South, ...	1,342	12,200	11.0	1,709	13,400	12.7
Newton West, ...	1,103	11,800	9.4	1,397	13,800	10.1
Norwood, ...	302	7,380	4.1	465	8,700	5.3
Quincy, ...	1,295	30,300	4.3	2,310	37,100	6.2
Randolph, ...	170	6,710	2.5	274	6,400	4.3
Reading, ...	427	5,970	7.2	677	6,100	11.1
Revere, ...	553	14,200	3.9	1,012	22,500	4.5
Roxbury, ...	4,571	102,000	4.6	6,617	127,000	5.2
Somerville, ...	3,845	74,400	5.2	5,842	78,200	7.5
South Boston, ...	1,268	71,300	1.8	1,881	74,700	2.5
Stoneham, ...	292	6,350	4.6	393	7,200	5.5
Wakefield, ...	531	10,900	4.9	806	12,100	6.7
Waltham, ...	1,405	29,900	4.7	1,996	30,900	6.5
Wellesley, ...	565	6,860	8.2	782	6,400	12.2
Weymouth, ...	437	11,700	3.7	717	13,300	5.4
Winchester, ...	974	8,870	11.0	1,269	9,900	12.8
Winthrop, ...	1,099	7,890	13.9	1,710	11,200	15.3
Woburn, ...	608	14,500	4.2	797	15,600	5.1
Total Suburban District, .	56,445	1,097,000	5.1	83,350	1,222,800	6.8
Total Metropolitan District,	80,975	1,268,000	6.4	114,789	1,412,800	8.1

TABLE 9. — *Total Stations in Central, Suburban and Metropolitan Districts and Annual Increase from 1904 to 1912.*

DATE.	TOTAL STATIONS.			Increase during Year in Metropolitan District.
	Central District.	Suburban District.	Metropolitan (Central and Suburban) District.	
December, 1904, ...	29,935	30,311	60,246	6,490
December, 1905, ...	34,437	37,873	72,310	12,064
December, 1906, ...	39,732	46,383	86,115	13,806
December, 1907, ...	43,405	52,446	95,851	9,736
December, 1908, ...	45,406	57,718	103,124	7,273
December, 1909, ...	49,132	64,677	113,809	10,685
December, 1910, ...	52,912	72,847	125,759	11,950
December, 1911, ...	57,133	83,020	140,153	14,394
December, 1912, ...	62,463	92,464	154,927	14,774

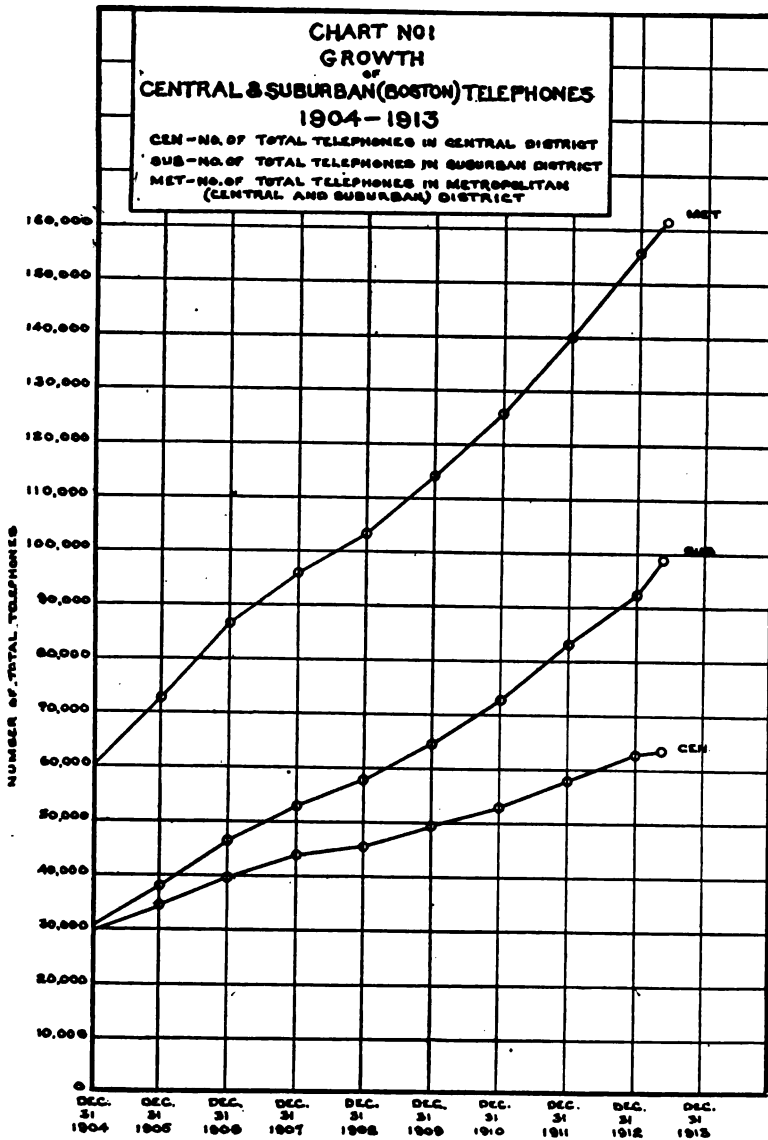
TABLE 10. — *Total Stations of the New England Telephone and Telegraph Company (and Southern Massachusetts Telephone Company) in Massachusetts Outside of the Metropolitan District, and Annual Increase from 1904 to 1912.*

YEAR.	Total Telephones in Massachusetts, excluding Metropolitan District.	Increase during the Year.
December, 1904, ...	53,473	7,836
December, 1905, ...	67,030	13,557
December, 1906, ...	84,295	17,265
December, 1907, ...	98,062	13,767
December, 1908, ...	104,427	6,365
December, 1909, ...	115,991	11,564
December, 1910, ...	132,185	16,194
December, 1911, ...	147,390	15,105
December, 1912, ...	181,913	14,623

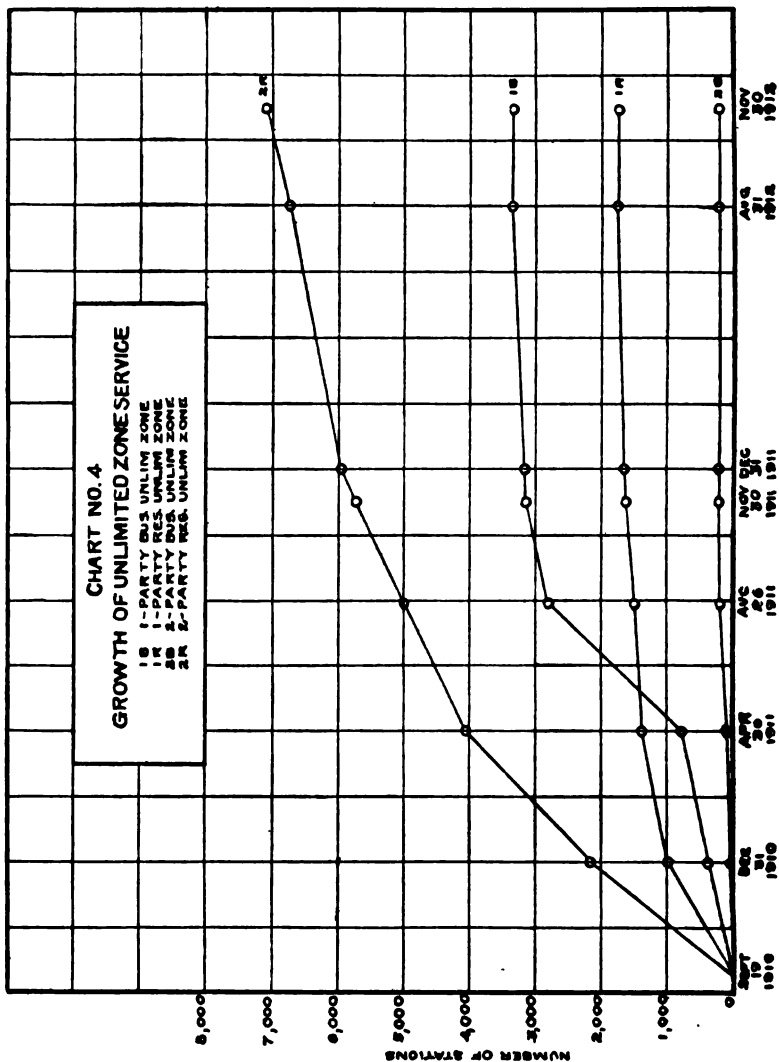
TABLE 11. — *Total Stations of the New England Telephone and Telegraph Company (and Southern Massachusetts Telephone Company) in Massachusetts, and Annual Increase from 1904 to 1912.*

YEAR.	Total Tele- phones in Massachusetts.	Increase during the Year.
December, 1904, ...	113,719	14,376
December, 1905, ...	139,340	25,621
December, 1906, ...	170,410	31,070
December, 1907, ...	193,913	23,503
December, 1908, ...	207,551	13,638
December, 1909, ...	239,800	32,249
December, 1910, ...	257,944	18,144
December, 1911, ...	287,443	29,499
December, 1912, ...	316,840	29,397

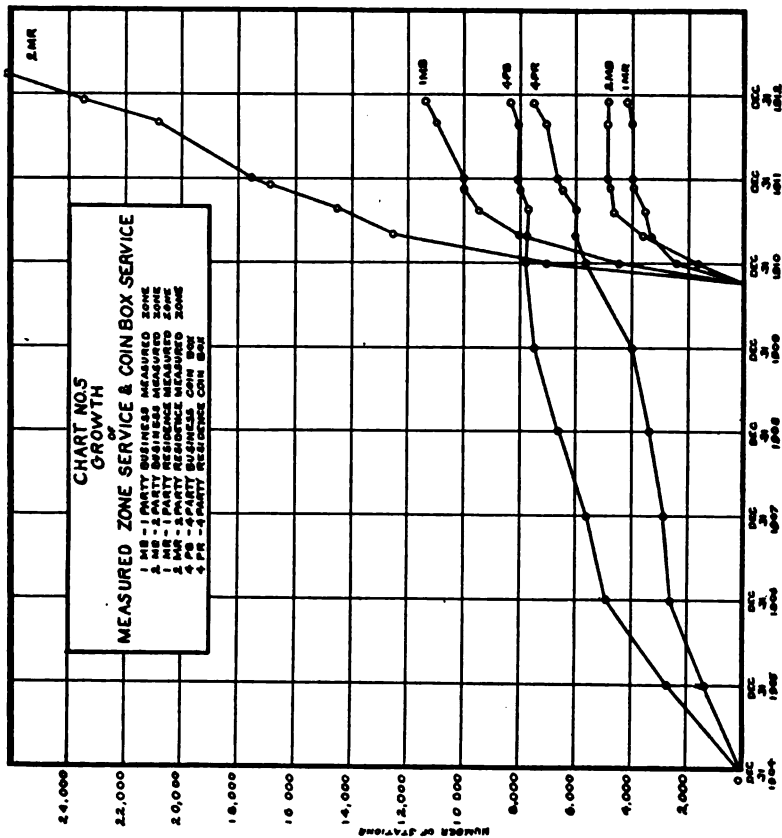
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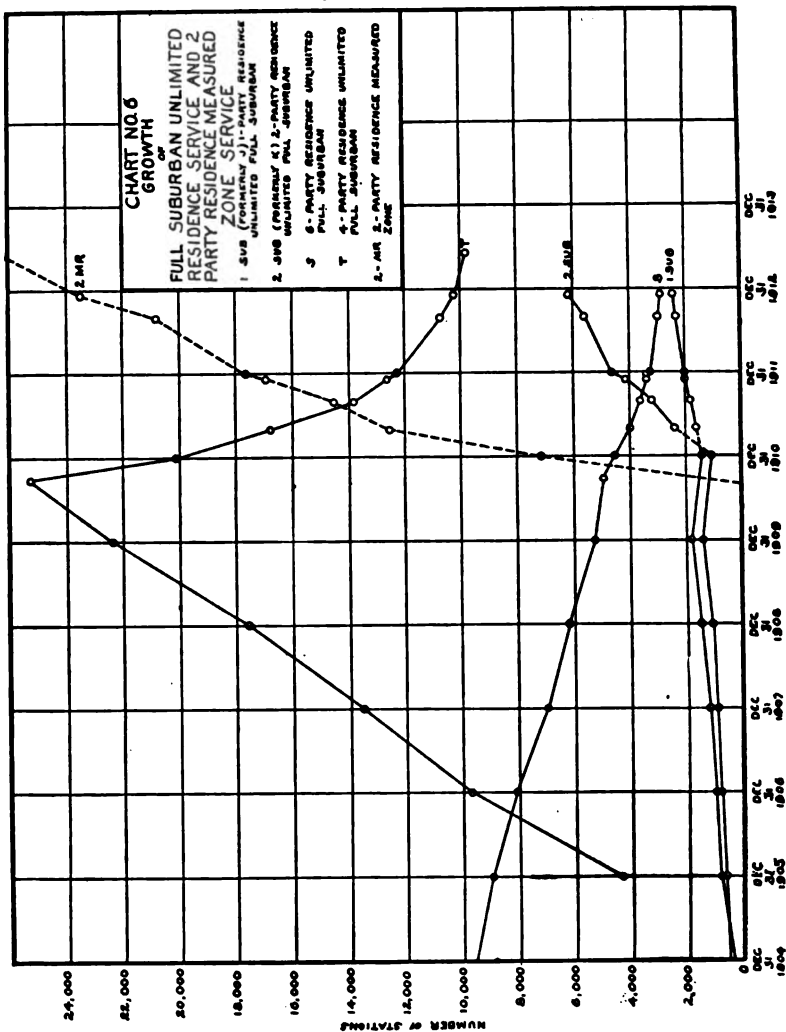
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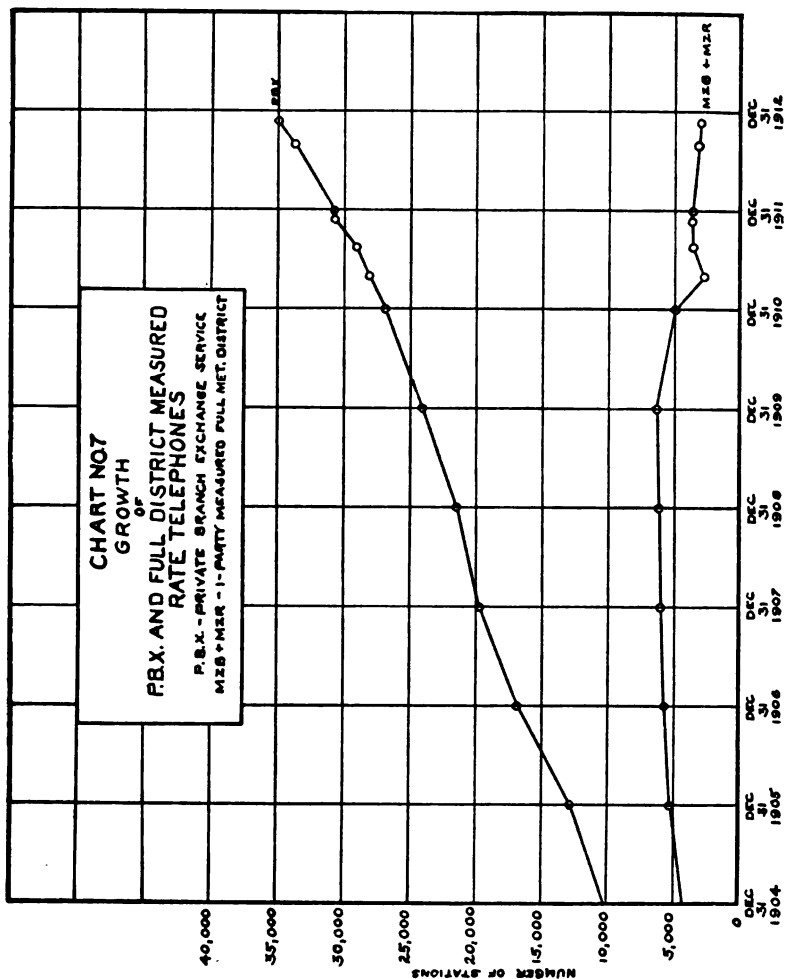
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No. 6.



No. 7.



STATEMENT BY CONFERENCE OF RAILROAD COMMISSIONERS
UPON PROPOSITION OF THE BOSTON AND MAINE RAIL-
ROAD TO INCREASE ITS RATES OF TRANSPORTATION.

A series of hearings was recently held by a joint conference, consisting of Commissioner Prouty of the Interstate Commerce Commission and the members of the Commissions of Massachusetts, Maine, New Hampshire and Vermont, upon the proposition of the Boston and Maine Railroad to increase its rates of transportation. This joint conference concurred in a statement which was issued on November 24, 1913. As this statement deals with some important phases of the present financial situation of the Boston and Maine Railroad, and as it contains certain suggestions and recommendations which might well engage the attention of the legislature, such portions of this statement as seem pertinent are given below and made a part of this report.

During the investigation by the Interstate Commerce Commission into the railroad situation in New England it developed that the Boston & Maine was in financial difficulties, and the representatives of that company earnestly insisted that it must very materially increase its transportation charges. The case so presented was sufficiently strong to persuade that Commission that it should be further inquired into.

The Boston & Maine Railroad traverses the states of Maine, Massachusetts, Vermont, and New Hampshire. The greater part of its mileage is in Massachusetts and New Hampshire, but the other two states are materially affected by its rates. Owing to the small area of these states a very considerable percentage of the business of this company is interstate, and the different parts of this northern section of New England are so intimately connected that it is essential that the entire rate structure, both that subject to the federal and that subject to the state jurisdiction, should be uniform. An attempt to deal with this rate situation by the independent action of the several commissions could only result in confusion and discrimination. The Interstate Commerce Commission therefore suggested to the various state commissions that the several commissions interested should meet in conference upon these matters. This suggestion was accepted by all the state commissions, and a series of hearings and conferences has resulted which have been participated in by a single member of the Interstate Commerce Commission, but by all members of the various state commissions.

It should be carefully noted, however, that while the proceedings referred to in this statement resulted from the above suggestion of the federal commission, the matters herein discussed have not been submitted

to nor passed upon by that commission as a body nor by any individual member of the same except only the one concurring in this statement.

The Interstate Commerce Commission has no authority to approve in advance a schedule of rates, and cannot therefore permit an advance in rates. The carrier must in the first instance file its tariffs, which are then subject to examination and correction by the Commission. The present powers of the commissions of Massachusetts and Vermont are almost identical with those of the federal commission in this respect; the present commission of Maine has a more limited jurisdiction still over rates, but the commission of New Hampshire, under the peculiar circumstances obtaining in that state, must approve rates before they can be established.

It results, therefore, that the Boston & Maine can advance no rates, either state or interstate, which apply within the limits of the state of New Hampshire without the approval of the Commission of that state. Since that state is so situated that the rates of the Boston & Maine system cannot be revised without changes in the state of New Hampshire, it follows that before the commission of that state can intelligently determine what rates may be established it ought to know in the public interest what rates will probably be acceptable to the federal commission and to the various state commissions. Under the peculiar circumstances thus presented it has seemed to the various commissioners who have participated in these conferences, that while no action could be taken which would bind the several commissions, if their interference is subsequently invoked, still the public interest did demand that this situation should be dealt with as a whole and that they, as individuals, ought to unite in some expression of opinion as to what should be done. It is in that view that this statement is issued.

The Boston & Maine Railroad, upon the basis of its present rates, is bankrupt. For the year ending June 30, 1913, it had remaining after the payment of its fixed charges and its taxes \$49,000. In point of fact, dividends aggregating 3 per cent upon the capital stock were paid during the year, but they were not earned. Comparing July, August, and September of the present year with the corresponding months for the year 1912 we find a decrease in net operating revenue of \$687,000. Its gross operating revenues for the month of October were approximately \$150,000 less than for the corresponding month in the preceding year; no statement of operating expenses for that month has yet been furnished. From an analysis of its operating expenses for the year 1913, as compared with other years upon the Boston & Maine and with other railroads, and as compared with the first three months of the current year, it seems probable that its income from operation will fall at least \$1,000,000 short of what it was in the year 1913.

It also appears that certain of the charges against this income will be materially increased during the current year as compared with the previous like period. Owing to an advance in the rate of interest, the in-

terest charges will be increased approximately \$600,000. The actual interest charge will exceed that for the previous year by a much larger sum than this, but this is in part offset by income from property purchased. Owing to an increase in the per diem charge for the use of freight cars, the item for hire of equipment, if the same amount of business is transacted, and if no greater car efficiency can be secured, will be approximately \$400,000 larger.

While it is hoped that the result will be more favorable than the indication, it now appears probable that for the year 1914 the Boston & Maine Railroad will lack, if no increase in rates is allowed, \$2,000,000 of sufficient income to pay its taxes, its interest, and its fixed charges, without the payment of any dividend upon its capital stock.

This deplorable showing is in part due to the mismanagement of the company. The Boston & Maine has outstanding \$27,000,000 of short-time paper which it will carry for the current year at a charge of about $7\frac{1}{2}$ per cent, as compared with $5\frac{1}{2}$ per cent for the preceding year. Of this short-time paper \$20,000,000 was used to purchase stocks which the Boston & Maine now owns. Assuming that these stocks may finally be worth the price paid, which is doubtful, their purchase at the time was utterly unnecessary and ill advised, and the consequences of those transactions ought not to be visited upon the rate-paying public.

The attempt of the New York, New Haven & Hartford Railroad Company to acquire a control of the Boston & Maine system and combine that system in operation with its own proved disastrous and the effect is still obvious in the operating cost of the Boston & Maine Company.

The contract of the American Express Company has been often referred to in discussions upon this general subject. Under that contract the Boston & Maine receives 35 per cent of the gross income of the express company. Mr. Elliott stated that negotiations were in progress which he hoped would result in increasing this percentage to 45. As applied to the business of the express company for the year ending June 30, 1913, this increase of 10 per cent would amount to nearly \$370,000.

Upon the other hand, many things have contributed to necessarily increase the operating cost and therefore diminish the net income of this company for the last four years. First among these is increase in wages. The Boston & Maine had not paid upon all parts of its system the standard eastern scale to its employees, but, as we understand the matter, within the last three or four years this has been changed so that to-day standard wages are paid upon all parts of the system to engineers, firemen, and trainmen. Wages have been materially increased in the last five years upon all railroads, but the increase upon the Boston & Maine has been greater than the average.

The recent advance in wages under the decision of the arbitrators sitting at New York will cost the Boston & Maine \$300,000 annually.

The Boston & Maine is preeminently a terminal road. It is the de-

livering and originating carrier with respect to much long-haul business upon which it receives itself but a comparatively short haul. The car while being unloaded and again loaded is necessarily in the possession of the Boston & Maine. The tendency of this is to make that company a large debtor to its connections on account of freight car equipment, and this is aggravated by the fact that its own freight car equipment is inadequate. When the charge for the use of freight cars was upon a mileage basis the Boston & Maine did not suffer, but with the change to a per diem basis, and with the increase of this per diem, the charge for car hire against this company has become a very serious matter. This item in 1909 was \$626,000; in 1913 it had increased to \$1,748,000, and owing to a further increase in the per diem rate which took effect on January 1, 1913, there will be a still further increase for the present year.

The most doubtful question in this connection is upon the reasonableness of the rentals paid by the Boston & Maine for its leased lines. That company presented figures to show that the rents paid were much lower than would be justifiable in view of the value of the properties. Excluding the Fitchburg, which is the most recent acquisition of the Boston & Maine, the average capitalization of its leased lines is approximately \$50,000 per mile, and the average return upon this capitalization is less than 6 per cent. The capitalization of the Fitchburg is about \$128,000 per mile, and the return 3.84 per cent upon this capitalization. The Interstate Commerce Commission will in the near future, under the act of Congress of March 1, 1913, value these lines of railroad, and until that work is completed no definite opinion can be expressed upon the propriety of these leases. We have assumed that some of them might be somewhat excessive.

After allowing for any probable excess in these leases and charging up against the Boston & Maine everything which is fairly due to the mismanagement of that company, it is still our opinion that it should be allowed some advance in its transportation charges.

Counsel for the company claimed that such increase should amount to at least \$5,000,000 per year. To this we do not assent. It cannot be known until the property is once more efficiently and properly operated and until its leasehold lines have been valued what the advance should be, but we are clearly of the opinion that there should be a substantial advance now, provided that such additional revenue can be obtained without imposing upon the public unjust and unreasonable transportation charges; and provided further, that some assurance can be given that the money, when obtained, will be prudently expended in the public interest.

Assuming that the rates of the Boston & Maine are to be increased, it is a very perplexing question just how this increase shall be effected. At least two New England states require the sale of mileage books, good to bearer, at 2 cents per mile. In the face of these statutes it is impossible to advance materially passenger fares, and it is doubtful if public senti-

ment would consent to such an advance. Whatever additional revenue is obtained now from increases in rates must therefore come in the main from freight traffic.

It has seemed to us a very hazardous undertaking to attempt an advance of what may be known as the long-distance rates of the Boston & Maine system. To-day the industries of New England are in competition with similar industries in other parts of the United States in almost every instance, and that competition is keen. To increase the cost of transportation to the New England manufacturer without a corresponding increase to his competitor would place upon our New England industries a burden which they are not very well able to sustain. The rates which the New England manufacturer pays upon his raw material in and upon his manufactured product out should be handled with extreme caution.

There are many joint rates from points upon other lines to points upon the Boston & Maine which might be advanced without imposing a direct burden upon the industries of this section, but to advance these rates if the basis of divisions remains the same would operate to increase the revenue not only of the Boston & Maine but also of its connections, and, whatever conclusion may finally be reached, there is nothing before us now which would indicate that such advances would be proper in case of these connections. It might finally be possible to change the basis of division so that the Boston & Maine would obtain the entire benefit of the advance, but this would require time, much negotiation, and possibly litigation.

The rates which can be dealt with, and which ought to be first dealt with, are the local rates of the Boston & Maine system; that is, rates from point to point upon the lines of that railroad. These rates are of two kinds, class and commodity. The class rates are the basis of the rate structure, commodity rates being usually in the nature of an exception to the class tariff. While there is no doubt that the commodity rates of New England are filled with the grossest discrimination and inconsistency, and that they ought to be at once revised for the purpose of removing discrimination, if not otherwise, still it has seemed to us that the beginning of a recreation of the rate structure of the Boston & Maine lay in the establishment of some consistent system of local class rates.

The Boston & Maine Railroad is, as to a part of its territory, a great terminal yard. The average haul of that company upon all traffic is 102 miles, as compared with 143 miles in the United States as a whole. The average haul upon its local business, that being the business under consideration, is but 60 miles. Even in case of this short haul the traffic passes through numerous junction points, where it is reclassified, both into cars in case of merchandise traffic and into trains in case of carload traffic. These terminal services are expensive — more so than is generally realized. Of the total freight locomotive mileage upon the Boston

& Maine system, over 66 per cent is in switching service. In this, passenger switching is included, but that item is comparatively insignificant. That company showed in the course of an elaborate investigation undertaken by the New Hampshire commission that the average cost of handling business at its Boston terminal was 41 cents per ton, without any allowance for the value of the terminal property itself. A statement of the estimated value of that property was made upon the basis of which the allowance for the use of the property was stated at 10 cents per ton, making a total cost of 51 cents per ton. The total gross revenue per ton received by the Boston & Maine Railroad upon all traffic handled by it during the year 1913 was \$1.13. While traffic handled in and out of the Boston terminal may not be fairly representative of its entire business, still these figures show how significant must be the terminal expense. This expense to-day is aggravated by the fact that these terminals have not been so maintained and added to that the business can be done to good advantage.

Several of the component parts of the Boston & Maine system were originally short lines running out of Boston to near-by points, and these lines when constructed established rates and classifications which seem to have been in a measure continued down to the present day, with the result that in certain instances extremely low and inconsistent rates are in effect. It is probable that under these rates upon certain classes of business the Boston & Maine receives materially less than the cost of the service.

Merchants and manufacturers located at Boston and other points upon the Boston & Maine come into competition in certain territory with New York and other points located upon other lines of railroad. To advance the rates from Boston & Maine points to these competitive destinations without a corresponding advance from points not located upon the Boston & Maine system would manifestly place Boston & Maine interests at a serious disadvantage. The traffic manager of the Boston & Maine stated that rates from points upon his line to these competitive destinations would not be advanced without a corresponding advance from points upon other lines, and it is understood that the schedules which have been approved will not be established unless this is done.

It is also understood that the Boston & Maine will at once proceed to revise its commodity tariffs to the end that the present discriminations may be removed.

The increase in revenue which would have resulted from establishing the schedule of local class rates presented by the railroad would have been approximately \$900,000; the amount of additional revenue derived from the rates approved by us will be approximately \$500,000. About 14 per cent of the entire freight revenue of the Boston & Maine Railroad is derived from business handled under these rates. No definite estimate

was made by the Boston & Maine of the amount of additional revenue which could be obtained by advances in its commodity or in its long-distance rates, but we have already expressed the opinion that many of these rates must be increased with extreme caution, if at all.

It should be noted that these local rates of the Boston & Maine under consideration are not involved in what is known as the *Eastern Rate Advance case* pending before the Interstate Commerce Commission. Many of the joint rates of that company are embraced in that proceeding, and should the general advance be allowed the Boston & Maine would to some extent benefit thereby.

The Boston & Maine, in presenting its case, referred to certain advances in passenger fares which it desired to make and of which it asked approval. No objection, as we remember it, has been offered to these proposed advances, but they are all local in character and do not affect the general passenger fare structure in New England. No opinion is therefore expressed as to their reasonableness. If the Boston & Maine so elects, it can file these tariffs, which will then be dealt with in the ordinary manner.

It has been already noted that at least two of the states in which the Boston & Maine operates require the sale of mileage books at 2 cents per mile, and that therefore no general increase in passenger fares can now be made. It may not, however, be improper to suggest that in considering what must perhaps finally be done in the way of readjusting the transportation charges of the Boston & Maine system serious consideration should be given to the advisability of somewhat increasing passenger fares.

At the present time the local fare upon many parts of that system equals or exceeds $2\frac{1}{2}$ cents per mile. When a mileage book, good to bearer, is sold for 2 cents a mile, it inevitably results that speculators will put these mileage books on sale at something in excess of 2 cents and something less than the local fare. In point of fact, upon certain parts of the Boston & Maine system this kind of speculation in transportation is habitually and extensively conducted. This certainly is wrong. The passenger ought not to pay a profit to some middleman for his transportation, and rates of fare should be so adjusted that the inducement to this kind of speculation will not exist. If mileage books were sold at $2\frac{1}{4}$ cents instead of 2 cents per mile, and local fares were adjusted upon a minimum of $2\frac{1}{4}$ cents and a maximum of $2\frac{1}{2}$ cents, the relation between the mileage book and the local fare would be a more just one than at present exists. Many of the commissioners feel that there should be no difference between the mileage book and the local rate; that the local rate should be properly adjusted and the mileage book abolished. We are all of the opinion that these passenger fares require readjustment and that the statutes of those states which might interfere with a uniform treatment of this subject should be so modified that, if possible, some just rule applicable to all territory may be formulated.

Assuming that the same number of mileage books were sold as at present, an increase of one-fourth of one cent per mile would yield additional revenue of approximately \$500,000 per year. If the transportation charges of the Boston & Maine Railroad must be increased, it is doubtful if that increase could be made in any way in which it would be so evenly distributed and so little felt as by that slight addition to the mileage-book rate.

It is generally claimed by railroads that the passenger business on a system like the Boston & Maine, at 2 cents a mile, pays little if any profit. For this statement there are at the present time no reliable data. The Interstate Commerce Commission is about requiring carriers to separate in their returns to that Commission the cost of conducting their freight and passenger business, and it is hoped that in the comparatively near future it may be possible to determine with reasonable certainty whether the present passenger fares contribute a proper amount to the total revenue of this railroad in proportion to the cost of the service.

It is not seriously denied that there has been in the past mismanagement of this property, which is to an extent responsible for its present difficulties. Clearly no increase in rates should be allowed until it is made reasonably certain that the revenues of this company will be prudently expended in the public interest. Mr. Elliott, the chief executive of the New Haven Company, which is the owner of a majority of the stock of the Boston & Maine, and Mr. McDonald, the newly appointed president of the Boston & Maine itself, were both called before the conference and were asked what assurance could be given for the future. They both replied, in substance, that they could only say that so long as they were identified with the management of these New England railroads their best effort would be employed to secure a satisfactory and efficient operation.

While this is all that those gentlemen, as individuals, can say at the present time, it is not wholly satisfactory. The directors of these railroad corporations are both in law and in fact the source of all authority. They elect the officers who manage the properties, and can determine the policies which those officers shall execute. They ought at least to know whether the results obtained by their appointees are satisfactory. Now, while there have been some individual changes in these boards of directors, the majority of the membership is the same to-day that it was a year ago. This is not reassuring for the future. If these gentlemen have in recent times given any actual attention to the management of these properties their failure to see and to do is evidence of their conspicuous want of fitness for the place. If, upon the other hand, being vested with the duty of management, they have utterly neglected that duty and known nothing about the operations of these companies, that fact is even clearer evidence of their unfitness for these positions. If the stockholders of these companies would present to the people of New England a radically changed directorate this would go far toward satisfy-

ing the public that some substantial reform was contemplated, or at least that the directors would know what was happening.

Certain changes have already been made in the management of the Boston & Maine system which are in our opinion in the right direction. The operation of that property has been entirely divorced from that of the New Haven Company. Mr. McDonald, formerly chief executive of the Maine Central, has been elected president and put in charge of the property. The long service of this gentleman upon the Maine Central and his success in that field inspire confidence in his selection, and there is reason to believe that if he can receive proper support he may do much toward the rehabilitation of the Boston & Maine itself.

In our opinion the salaries paid the chief executives and frequently the other chief officials of the principal railroad systems of the United States, ranging as they do from \$50,000 to \$100,000 annually in case of the chief executive, are utterly extravagant. These positions are not properly private places, to which the corporation may attach any compensation which its stockholders ratify; they are quasi public in their character, and the reasonableness of the amount paid may properly be inquired into, especially where the corporation is asking to impose an additional transportation tax. While the amounts paid the high-salaried officials of our different railroad systems are almost an inappreciable part of the total expenses of those properties, still the effect is significant. Extravagance at the top is reflected all the way down the line. We doubt whether the people of this country will long feel altogether satisfied to allow increases in rates which are being asked for until these salaries have been readjusted.

We are also of the opinion that the traffic departments of the Boston & Maine and the New Haven should finally be entirely separated. No criticism is intended of the gentleman who now acts as the chief traffic officer of both these companies. During these conferences his fairness and his ability have been evident, but in our view no man should permanently hold that position in both companies.

In the first place the tariffs of the Boston & Maine, even after this beginning in the way of simplification has been made, are still in a most chaotic condition. It is imperative that some strong man should devote his entire time to the revision of these schedules for some years to come.

In the second place, while these two railroad companies ought to co-operate in all proper ways, still there are important points at which their interests are diverse. It is earnestly insisted by many who have given the subject careful attention that to-day the traffic of the Boston & Maine is being diverted to the New Haven at the expense of many thousands of dollars of revenue each year. We have not been able to investigate this claim, but it is clear that the traffic department of the Boston & Maine should be so independent of the New Haven that this and all similar questions can be fairly considered.

The present financial condition of the Boston & Maine Railroad is critical. The most embarrassing feature is that nobody can tell exactly what should be done to protect the just interests of all concerned. It may finally turn out that these properties should be thrown into the hands of a receiver and pass through a process of reorganization, but this would be a calamity which ought to be avoided if possible. Nothing can be done hastily. The present condition was years in the forming and will require years in the correction. For the moment there is need of patience and co-operation. If disaster is to be avoided, all interested parties must exercise forbearance and must undergo temporary inconvenience.

The public must expect to sustain some part of this burden. It should, perhaps, during this acute stage abate something from the demands which under ordinary circumstances would be reasonable. It should not be taxed for the mismanagement of this property, but it should remember that the cost of furnishing the service now demanded has increased and that this property is entitled to a fair return. We are satisfied that the section of New England traversed by this railroad desires a high-grade and efficient service and will willingly pay a reasonable price for that service when it can be known what that is.

HAMPDEN RAILROAD.

The Hampden Railroad was completed some months ago between Bondsville and Athol Junction, but has not yet been put in operation. Neither the branch line to Holyoke nor the connection with Chicopee Falls as specified in the charter of the road have been built. Questions have been raised as to the validity of the present location of the Hampden railroad and as to the obligation of the corporation to build the branch line to Holyoke and the Chicopee Falls connection in addition to the road which has already been built.

With reference to this the Commission in its report on the petition of the Hampden road for right to issue bonds said:

It seems clear that neither the Hampden Railroad Corporation nor the Boston & Maine Railroad is now in a financial position to build the branch line into Chicopee to connect with the Chicopee Falls branch of the Boston & Maine railroad or the branch line into Holyoke. Indeed it is doubtful whether a legal location for these branch lines could now be obtained. If under the terms of its charter the Hampden Railroad Corporation is under obligation to build these branch lines within four years from the date of its certificate of incorporation under penalty of forfeiture of its charter, it seems desirable that the two railroad companies should join in a petition to the Legislature for a relief of that obligation.

The directors of the Boston and Maine Railroad have recently expressed their unwillingness to ratify a lease of the Hampden railroad at the present time, stating as one of the reasons for such unwillingness the fact that the branch line to Holyoke has not yet been constructed. We believe that it is in the public interest that the road having been constructed, should be put in operation as soon as possible, and to that end that appropriate legislation should be had settling the exact status of the road as constructed, determining whether the lines to Chicopee Falls and to Holyoke should be constructed or not, and providing upon what terms and conditions, if any, the Boston and Maine Railroad may operate or acquire the road as constructed.

RAILROAD POLICY.

The past year has been marked by changes of far-reaching importance in the field of public service regulation in this commonwealth. The necessity of providing a system of regulation in conformity with the spirit and adequate to the needs of the present time had impressed itself upon the general public and received recognition in the platforms and policies of the various political parties. In response to this general demand a bill to change the name, enlarge the membership and increase the powers of the board of railroad commissioners was reported at the last session of the General Court.

While this bill was pending a report upon certain provisions of the bill was made on May 8, 1913, at the request of the Legislature, by the board of railroad commissioners and the bank commissioner and printed as House Document No. 2445. The changes in the system of public regulations which were designed to be accomplished through this legislation are indicated in that report, as follows:

The present system of railroad regulation in this state, no matter how admirably it may have served the needs of an earlier time, is no longer adequate for the larger needs of the present day, and the railroad commission with its present organization and equipment is no longer an efficient instrument for the proper discharge even of the powers which are vested in it under the present law. The provisions in the pending bill, by enlarging the membership of the commission, by making provision for the appointment of a counsel and such engineers, accountants, statisticians,

bureau chiefs and division heads, and other subordinates as may be necessary, for the efficient discharge of the administrative functions of the commission, by the requirements for greater publicity on the part of the corporations subject to its jurisdiction, by empowering the commission to make a thorough investigation of all railroad accounts and a valuation of all railroad properties whenever it deems the same advisable, by vesting the commission with mandatory rather than recommendatory powers, by making proper provision for the enforcement of its decrees, and in many other respects would make it possible, if the bill were enacted, for the commission to discharge in a much more efficient manner than heretofore its powers in relation to the supervision of the issue of corporate securities of railroad companies, as well as its other functions in the regulation of the rates, service, accommodations and facilities of the corporations under its jurisdiction.

The Legislature, after a careful consideration of the entire problem for many months enacted the present Public Service Commission law, printed as chapter 784 of the Acts of 1913. This law gave the commission jurisdiction over telephone and telegraph companies in addition to the companies formerly under the jurisdiction of the board of railroad commissioners. While this law is susceptible of improvement in certain respects, it is generally and justly regarded as one of the best of the many statutes for the regulation of public service corporations which have recently been enacted in the various states.

The Public Service Commission law became effective on July 1, 1913. Mr. George W. Anderson and Hon. George P. Lawrence were added to the membership of the Commission on July 3, 1913, and on the same day the Commission organized by the election of Mr. Frederick J. Macleod as chairman. On September 1, 1913, Hon. George P. Lawrence resigned as a member of the Commission and on September 24, 1913, Mr. Everett E. Stone assumed office as his successor.

As the rooms occupied by the board of railroad commissioners at 20 Beacon street, Boston, were found inadequate for the larger organization contemplated and provided for in the Public Service Commission act, the complete organization of the different departments of the Commission on a proper basis of efficiency has, necessarily, been deferred. New offices have, however, been assigned to the Commission in the building now nearing completion at No. 1 Beacon street, Boston, where the Commission within a few weeks will be installed with all its

departments in full operation. The broad grant of powers to the Commission will prove effective in proportion only to the ability, energy and fidelity of its members, and to the extent that the Commission is furnished with facilities, commensurate with those of the more important public service commissions in other states, and adequate for the proper discharge of its official duties.

The Public Service Commission during the few months it has been in office has been obliged to deal with some of the most serious and difficult problems that have ever confronted a regulating commission in this commonwealth. But while there have been many important developments which have tended to make the railroad problem more acute during the past year, the essential features of the railroad situation are such as to make the discussion and recommendations contained in the forty-fourth annual report of the board of railroad commissioners, under the heading of "Railroad Policy", still pertinent. Most of the suggestions there made are still applicable and may well be considered by the Legislature as in substance repeated at the present time. Attention should be directed to the fact that previous legislatures have had, not only in reports of the railroad commissioners but in the reports of the joint board of 1909 and the validation commission of 1910, a most careful and thorough analysis of the railroad situation, together with fairly definite and specific recommendations, few of which have ever been acted upon by the Legislature.

The just feeling of dissatisfaction with existing conditions of transportation in this commonwealth, referred to in the last report of the railroad commissioners, continues. The destructive results of the policy of monopoly, waste and other forms of mismanagement have become most obvious in the decreasing market value of the securities of our leading railroads.

The American people are now trying the experiment of having their great highways, the railroads, privately owned and managed and publicly regulated. That experiment is doomed to complete failure unless, as a joint result of management and regulation, the securities of these railroads are made and kept sufficiently secure and attractive so that new capital can readily and

on fair terms be obtained for much needed extensions and improvements. The facts that the Boston and Maine Railroad is now paying no dividend whatever upon its capital stock, that the market price of the stock, as indicated by current quotations, is less than \$50 per share, that the New York, New Haven and Hartford Railroad has passed its last dividend, and that its stock is selling for much less than par, indicate the absolute need, from the standpoint of financial resources alone, of an immediate and thorough reorganization.

In this connection we desire to emphasize the substance of what was stated in the last report of the board of railroad commissioners (see 44th Rep. p. 79) as to the vital distinction between regulation and management. The holders of the securities of our railroad properties should cherish no illusion that regulation is a substitute for efficient management. The directors of our railroads are chosen by the stockholders. While regulation may do much to protect the soundness of the investment, the sad experience of investors during the last few years shows conclusively that these stockholders must so exercise their franchise as to insure sound, efficient, prudent, progressive management. Regulation may compel the correction of definite evils like the use of unsanitary cars, but regulation cannot make an inefficient business efficient. Regulation cannot convert a poorly managed railroad into a well managed railroad. Regulation cannot supply initiative or energy nor infuse into railroad executives a will to please the people. Regulation cannot overcome the anæmia or wasting sickness which attends monopoly. Regulation may curb but it can do little to develop the activity of railroad officials.

It should be remembered also that there are jurisdictional limits to the authority that may be exercised by the regulating commission of a single state over carriers operating in several other states and subject to the jurisdiction of those states as well as of the Federal government. In view of this fact many problems can be solved only through the co-operation of our commission with the Interstate Commerce Commission and similar commissions of other states. Such action is expressly indicated by the following provision in section 10 of the Public Service Commission act:

The commission . . . may be represented at any public hearings before any legislative committee or public board in this commonwealth, or of any other state or of the United States, with respect to any proposed legislation or action by public authorities within or without the commonwealth affecting any public service within the commonwealth subject to its supervision, whenever in its opinion such representation is desirable in the interests of this commonwealth.

The feasibility of such co-operative action has been given immediate and practical demonstration in the recent conference had under the initiative of Commissioner Prouty of the Interstate Commerce Commission on the proposition of the Boston and Maine Railroad to increase certain rates of transportation. On that matter Commissioner Prouty called all the commissioners of the four northern New England states to hear the evidence and to participate in the conference and recommendations made. Although the result is not, strictly speaking, an official adjudication upon the proposed increase of rates, this occurrence shows that speedy and concerted action between the national and state commissions in regulating these public utilities is entirely feasible, and that the technical difficulties growing out of our complex American system of conflicting national and state jurisdictions will not be found an insuperable barrier to efficient regulation.

But however much can be accomplished through this or any other method of regulation, no regulating commission, however broad its powers, however able, fearless and diligent its members, can perform the functions of general manager and board of directors of a railroad system or supply the incentive and the eagerness to please the public and that development which results from the necessities of competition. Investors in the stocks of our railroads will neither have nor be entitled to have safe and generous returns upon their investments unless they so exercise their franchise as stockholders as to provide competent, efficient, progressive, faithful management.

The public will no longer tolerate the spectacle of directors of our railroads trading with themselves, whether the transaction involves bankers' commissions for underwriting or marketing securities or whether it involves a sale of railroads, trolleys or hotels. Our railroad companies will neither have nor be

entitled to have public confidence until the directorates, without exception, recognize that it always takes two to make a real and honest bargain. Positions upon the directorates of our great railroad corporations must be regarded as positions of onerous responsibility. Men looking merely for places of easy honor and emolument or to cast votes for the benefit of express companies, car building companies or for the sake of granting special transportation privileges to some manufacturing interests, have no proper place upon these directorates. The insignificant stock holdings of many, perhaps most, of the directors of our leading railroad companies show how unrepresentative of the real ownership these directorates have become. Men holding as of record and so far as we know in fact an average of not more than fifty shares of the stock of a railroad corporation whose capitalization is scores of millions are not in the nature of things qualified to deal zealously and adequately with the interest of the great body of stockholders.

What we have said as to the necessary limitations upon the power of regulation to protect investors is not to be construed too broadly. Under our capitalization laws permitting floating debt to be funded only when "properly incurred for lawful purposes", it is the plain duty of the regulating commission to scrutinize with care the nature and origin of every debt and by its orders to prevent the capitalization of any debt incurred for an improper expenditure or for the payment of dividends which are not clearly derived from real net earnings, that is, from earnings remaining after proper allowances have been made out of current or accumulated income for depreciation and obsolescence. In refusing to capitalize such expenditures the commission is safeguarding the interests of the stockholders. The greater the confidence of the investing public, the lower the rate at which it will furnish money for public utilities. Obviously, the lower capital charges may be kept, the lower may be the rates. It is the duty of investors in their own interest to guard against mismanagement as the attendant loss must inevitably, as recent events have shown, fall, in large part, upon the stockholders who, in contemplation of law, are responsible for the mismanagement.

These considerations have a direct bearing upon the present

situation. The holders of the securities of our Massachusetts railroads must in their own and in the public interest co-operate for an efficient reorganization. There can be no doubt of the intrinsic value of the New England railroads. New England is not decadent. Her industries are sound and prosperous. Her railroads will also be sound and prosperous if operated in compliance with the salutary principles of our Massachusetts railroad law and under the control of a management efficient and loyal to the interests of the stockholders and of the public these railroads serve.

As intimated in the last report of the board of railroad commissioners (see 44th Rep. p. 87) there is every expectation that the Federal government will take proceedings under the Sherman anti-trust act to force a disintegration of the New Haven system. We desire to repeat and to emphasize the suggestion made in that report (page 88) to the effect that in the interest of the company, "no less than in the interest of the public, such remedies as may reasonably suggest themselves after intelligent and dispassionate consideration of the whole problem, shall be immediately applied through the *voluntary action of the company* . . ."

It is far better for the owners of the securities as well as for the general public that the needed reorganization should be brought about by voluntary action, by fair consideration of both public and private needs and the requirements of the law, than that prolonged litigation should result. There is no confiscatory attitude in the public opinion of Massachusetts. Our people are ready and willing to pay just and fair rates upon property honestly and prudently invested in public utility companies.

One main difficulty with the present situation is that it is impossible to determine how much of the present need of the companies is due to inefficiency or mismanagement for which the stockholders ought to be held responsible and how much is due to increased public demands and increased cost of furnishing the service. The burden, under ordinary conditions, is upon the owners of the securities to demonstrate the just needs of their companies; and this can

only be done by showing what the net earnings of these companies will be if and when they have had a reasonable experience with the results of competent, faithful and efficient management.

Of course this policy should not be pursued to the extreme of withholding from the companies such immediate increases of revenue as may seem just and reasonable, and as may be necessary to enable the companies to continue to do business. The members of this Commission recently joined with Commissioner Prouty of the Interstate Commerce Commission and the members of the commissions of the other New England states in recommending certain changes of rates upon the Boston and Maine railroad which are expected to be productive of increased revenue. It may be found necessary in the near future to provide also for similar readjustments and increases in other rates upon the same railroad. Any attempt, however, in the light of present conditions, to determine what additional revenue the Boston and Maine Railroad really needs and is justly entitled to have, can be little better than a guess. No one can say with any approximation of accuracy what the net earnings of the Boston and Maine Railroad would be if it had made a proper contract with the American Express Company and with the Pullman Company, had granted no undue favors to certain influential manufacturing interests, had provided with foresight and efficiency for a readjustment of its freight and passenger rates and had made, so far as necessary, seasonable application for authority therefor to the Interstate Commerce Commission and to the legislatures and commissions of the northern New England states.

The Boston and Maine Railroad has for years borrowed the money it needed or raised it by the issue of stock, and has apparently given very little attention to the question as to whether its rates were as a whole just to its body of investors, or whether they bore any just relation each to the other. This indeed is admitted, even asserted, by the present officials of the road, at the recent hearings before the joint conference of railroad commissioners. In the brief of counsel for the railroad it is stated that the following extracts from the report of

the public service commission of New Hampshire on an investigation of railroad rates afford an illuminating description and analysis of the subject.

The class rate construction . . . seems to be lacking in the sense of proportion and as a result many discriminations are found. It has developed through witnesses for the railroad that the rates established by the several independent managements with their differing views as to policy, were adopted by the Boston and Maine Railroad when taking over these properties and that no intelligent effort has since been made to effect a more harmonious ensemble; one which would result in more substantial justice.

There is no pretense in these tariffs of maintaining any fixed relation between the various classes, the ratio between first and second, second and third, third and fourth class rates, etc., varying widely at different points; nor does the ascending scale of rates seem to bear any fixed relation to the increase in distance, or to physical or traffic conditions; in fact, it would be difficult to conceive an adjustment much less scientific than that in effect on these lines.

There are no physical conditions or conditions of population which would warrant such wide discrepancies. . . . The existing situation must be adjudged one of unjustifiable and unequal distribution of the burden. The . . . rates . . . make no distinction between second and third or between fourth and fifth classes, so that articles which the combined experience of shippers and railroads has determined are entitled to carriage at lower cost than some others, are nevertheless charged at equal rates.

These are enough examples to show that the situation is one of absolute chaos.

The fact shown by these quotations as to the rate condition of the Boston and Maine Railroad has a much broader application than to the mere question as to whether these particular rates should be readjusted or raised. It indicates that the attention of railroad managers has been for some years insufficiently directed to the fundamental character of the problems with which they are dealing. Years ago a sound and efficient management of the Boston and Maine Railroad would have dealt energetically with all these rate problems, including, of course, a proper adjustment of net earnings to depreciation and capital necessities. It seems to us that the Boston and Maine management should have made a much earlier and more determined effort to secure needed advances in rates instead of allowing such a condition to develop that, according to

the officials of the company, there is now needed an immediate increase of at least \$5,000,000 a year. The initiation of new rates has always been the duty of the management, not of the regulating commissions.

Assuming, as we do, that either as a result of the application of the Sherman act, or growing out of the obvious economic and financial necessities of the situation, a radical reorganization of the transportation system of Massachusetts and indeed of all New England is both desirable and inevitable, we outline a general result which would seem to us consistent with the public interest.

(1) The Boston and Maine and the New Haven systems should be at once separated and so separated that the Boston and Maine Railroad will be operated by a management having neither motive nor interest, direct or indirect, to serve any other railroad system or to divert for the benefit of any other railroad any traffic or profits which ought to accrue to its treasury or to permit any revenues which ought to be collected and applied to the maintenance and equipment of that property and to the payment of interest and dividends upon its securities, to be diverted to any other interest whatsoever. In a word, the Boston and Maine Railroad should have a competent management entirely loyal to its stockholders and the community that it has to serve. It should be, in our judgment, a northern New England railroad system. It should make such affiliations in northern New England with the great American and Canadian trunk lines as it finds most for its advantage and for the advantage of its community. It should make no affiliations or contracts with the New Haven road, the Pennsylvania line or other southern trunk lines unless such affiliations appear to be reasonably demanded in the interest of the public or of the Boston and Maine Railroad.

(2) We recommend that the Fitchburg division be retained as an integral part of the Boston and Maine system, provided, as hereinafter stated, the two lines can be operated together on terms just and reasonable to the holders of the securities of both lines. The Fitchburg should compete for through western traffic with the Boston and Albany and other lines lying to the south of Fitchburg. The so-called partner-

ship contract made in February, 1911, between the New York Central and the New Haven with reference to the operation of the Boston and Albany on joint account (see 43d Rep. Pt. II., p. 1051) should be terminated. We understand that steps have been taken for that termination. Actual, wholesome competition should be re-established between the Boston and Albany in the center, the Fitchburg, on the north, and the New Haven on the south. This recommendation is not to be understood as condemning proper traffic arrangements between the Boston and Albany and any other connecting line. Arrangements for through traffic, both passenger and freight, are often clearly for the public interest and profitable to both connecting roads, but there should be no general partnership between the New Haven and the New York Central in the operation of the Boston and Albany.

(3) As to the trolley lines, this Commission reiterates the views expressed in previous reports of the railroad commission, that the public interest is best served by separate or independent management for railroads and railways whether intrastate or extrastate.

(4) The so-called outside steamship lines from Boston should no longer be controlled by the New Haven Railroad. Wholesome competition between rail lines and water lines should be re-established.

(5) Under the Panama Act the continued control of the Sound lines is to be passed upon by the Interstate Commerce Commission. In view of this law and of the fact that the control of the Sound steamship lines by the railroad is at least arguably distinguishable from the question of the control of the outside steamship lines, this Commission is not required and perhaps not warranted in now expressing any views.

(6) Assuming that the Boston and Maine Railroad system is to be separated from the New Haven, the Boston and Maine system itself requires a radical reorganization. It is organically unsound in the disproportion of its fixed charges to its normal income. At par values the equity of the stockholders of the Boston and Maine Railroad hardly exceeded 20% of the capitalization of the entire system. Many, if not all of the leased lines should have been consolidated with

the parent company. The present unfortunate condition of the stockholders of the Boston and Maine Railroad shows the intrinsic unsoundness of permitting one corporation to guarantee dividends upon the stocks of some twenty other corporations, many of which are inferior in value and earning capacity to the leasing company itself.

It is true that the organization of the Boston and Maine system through leases of connecting lines was done under full legislative sanction and it is probably true also that the organization of the system could not have been effected when it was upon any other basis. But whatever reasons may have recommended this plan when it was adopted, experience has shown that this leasing system has resulted in throwing an utterly disproportionate burden upon investors in the stock of the Boston and Maine Railroad. This stock for many years paid dividends of 7% or more, but its proportion of the entire capitalization was so small that these apparently large earnings were delusive. A small shrinkage on the earnings of the whole system was sufficient to wipe out entirely any earnings upon the stock of the parent leasing company.

On the other hand, if it had been found possible to organize the Boston and Maine system by a consolidation of the various lines, owners of the stocks of the leased lines would have shared equitably in the fluctuations, risks, benefits and burdens of prosperity and adversity, good management and bad management.

The fact that the Boston and Maine Railroad has short-time notes to the amount of \$27,000,000 becoming due within a few months and that its present condition is obviously critical, makes this an appropriate time to reorganize the whole system. It is much better that this reorganization should be, in the main, a result of the agreements of the parties than through the compulsion of the courts or of the legislature. Receivership proceedings for this great system would inevitably cause great hardship and entail many serious losses both upon investors and upon the public, and should, if possible, be avoided.

Without attempting to forecast the action of the Commission with reference to any proceeding upon which it may hereafter be required to make an adjudication, we believe that,

as a matter of sound public policy, no attempt should be made to fund the outstanding floating debt of the Boston and Maine Railroad, except to the extent already provided for in orders heretofore issued by the board of railroad commissioners, until there is a reorganization of that system substantially in accordance with the traditionally sound theories of Massachusetts railroad finance.

In this connection the attention of the legislature is directed to the practical operation of section 15 of chapter 784 of the Acts of 1913, which permits a railroad corporation to issue bonds, notes or other evidences of indebtedness to an amount equal to double the amount of its outstanding stock, including the premiums. The result is that such a corporation as the Boston and Maine Railroad, whose stock is now selling at less than \$50 a share and which has other fixed charges for rentals of leased lines which absorb more than half its income applicable to capital charges, might still, as a matter of technical law, be permitted to issue bonds, notes or other evidences of indebtedness to double the amount of its outstanding stock, including the premium account. To illustrate by concrete figures—the amount of the capital stock and premiums of the Boston and Maine Railroad is \$49,156,910.84, double of which is \$98,313,821.68. Its outstanding funded debt is \$43,338,000, leaving a balance of \$54,975,821.68, for which bonds, notes or other evidences of indebtedness might be legally authorized under section 15, *supra*. But the annual report of the Boston and Maine Railroad for the year ending June 30, 1913, shows the following:

Gross corporate income	\$9,930,595 85
DEDUCTIONS: —	
Rentals of leased roads	\$5,312,700 28
Hire of equipment	1,748,315 03
Other rents payable	169,037 68
Interest accrued	2,547,311 04
Discount on notes	74,750 00
Sinking fund payment	28,785 00
	9,880,899 03
Net corporate income	
	\$49,696 82

Of these deductions, rentals of leased roads, other rents payable, interest accrued and sinking fund payments, are fairly to be denominated as normal fixed charges. To permit a railroad system already having such an utter disproportion of fixed charges to issue other bonds, notes or evidences of indebtedness to the extent permitted by section 15, is manifestly inconsistent with sound public policy.

Section 15 should be amended at least to the extent of giving the regulating commission in its discretion, the authority in applying the provisions of this section to take into account rentals or other fixed charges and also to consider the general financial condition of the company. It is utterly inconsistent with the traditional policies of Massachusetts to permit bonds to be issued under the official approval of the regulating commission as to the soundness of which there is any reasonable doubt.

In our discussion of the situation we have found it proper and desirable to deal frankly with existing conditions. Both the public interest and the interest of the owners of our railroad companies demand general public knowledge of all the salient facts. Nothing of real value can be accomplished through a policy of concealment. The facts must be faced by the companies and the public alike in order that proper remedies may be found and applied. Our transportation problem is a problem of such tremendous consequence to the industrial, commercial and social well-being of the entire commonwealth as to demand the highest intelligence and most disinterested public spirit on the part of all who, whether in public or private capacity, have any present responsibility in dealing with the problem.

Nor should it be overlooked that knowledge and criticism of past conditions are chiefly valuable as pointing the way to constructive reforms. There are hopeful indications that the financial and executive management and control of some of our chief railroad companies have passed into the hands of men imbued with a sincere and straightforward purpose of complying with Massachusetts law, of building up where others have destroyed. If that attitude is reflected in the

future policies of these companies, the public should be prepared to cooperate with a new and reformed management in every sound measure for a rehabilitation of our transportation system.

FREDERICK J. MACLEOD,
GEORGE W. ANDERSON,
EVERETT E. STONE,
CLINTON WHITE,
GEORGE W. BISHOP,
Commissioners.

APPENDIX.

APPENDIX.

SPECIAL REPORTS AND ORDERS RELATING TO RAILROADS, STREET RAILWAYS, ELECTRIC RAILROADS, STEAMBOATS, TELEPHONE, TELEGRAPH AND EXPRESS COMPANIES.

ACCOMMODATIONS, FARES, RATES, SERVICE.

RAILROAD RATES AND SERVICE.

Report of the board of railroad commissioners on an order of the general court relative to investigation and report in the matter of discontinuance of service on the Fitchburg division of the Boston and Maine railroad.

To the Honorable the Senate and the House of Representatives:

On May 9, 1913, the house of representatives adopted the following order, which was adopted in concurrence by the senate on May 12, 1913, and transmitted to the Board on May 13, 1913:

Whereas, the Boston and Maine Railroad, by a supplement to its time table, issued May 2, 1913, and effective May 12, 1913, proposes to discontinue to an unprecedented extent its service on the Fitchburg division, and particularly the service west of Fitchburg, and it is believed that such discontinuance will result in serious and unjustifiable inconvenience to the public; therefore be it

Ordered, That the board of railroad commissioners investigate and report to the general court within two weeks from the date of this order, as to the reasons for and the advisability of the proposed changes.

The Board gave a public hearing on the foregoing order and made an investigation of the subject matter thereof.

On May 12 last certain changes in the train service of the Fitchburg division of the Boston and Maine railroad were made effective. The service on certain trains on this division was discontinued between certain points, but in most cases the territory affected has been protected by additional stops upon other trains.

At the public hearing, which was widely advertised, the only complaint was in regard to the discontinuance of train No. 11, leaving Boston at 11.29 P.M. for North Adams, and train No. 20, leaving Troy, New York, at 11.55 P.M., and arriving in Boston at 7.10 A.M. The merchants' association of the towns of Gardner and Athol complained of the discontinuance of these trains, not only in so far as it affected passenger facilities, but on account of the delay in deliveries of mail. At the recommendation of the Board the company agreed to schedule National Express train No. 19 from Boston at 9.30 P.M. instead of 9.15 P.M., as at present, and to operate it from the North station proper, placing a passenger coach in the equipment for the accommodation of passengers. In order to supply the deficiency of service in the reverse direction the Board also recommended that the company place a coach in the equipment of National Express train No. 18. This arrangement, which was accepted as satisfactory by all the interested parties, became effective on May 26.

In order to meet complaints made subsequent to the hearing, in regard to present train facilities between the city of Waltham and Boston, the company has agreed to stop train No. 54 at Waltham. With this change, which was made effective on May 26, the complainants expressed themselves as being satisfied with the present passenger facilities in that city.

If at any later time complaint should be made to the Board in regard to the discontinuance of any facilities heretofore enjoyed by any community on the line of the Fitchburg division, the Board will hear such complaints in the regular course and take such action thereon as may be warranted in the premises.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

MAY 29, 1913.

[R. R. C. 9354]

Commissioners.

Complaint of the Allston Development Association concerning the restoration of stop at Allston of train on the Boston and Albany railroad.

After a public hearing and further consideration the Board recommends that the New York Central and Hudson River Railroad Company (lessee of the Boston and Albany railroad) resume the stopping at Allston of the train due to leave Boston at 5.05 P.M.

By the Board,

CHARLES E. MANN,

APRIL 21, 1913. [R. R. C. C-2081]

Clerk.

Petition of selectmen of Randolph relative to issuing season tickets on the New York, New Haven and Hartford railroad between Boston and the stations of Randolph and Holbrook.

WILLIAM J. GOOD for petition.

C. M. BURT for Boston and Maine Railroad.

H. M. BISCOE for Boston and Albany Railroad Company.

E. L. WILSON for New York, New Haven and Hartford Railroad Company.

The recommendation of the Board relative to the issuing of monthly commutation tickets by railroad corporations, adopted December 5, 1912, provided that "every railroad corporation engaged in the transportation of passengers within the commonwealth, except the Boston, Revere Beach and Lynn Railroad Company, shall issue a monthly season ticket good for sixty rides between any two stations on its lines except between Boston and points within the suburban zone where the twelve-ride commutation tickets authorized by chapter 649 of the Acts of 1908 are now effective."

In its last annual report, the Board made the following statement with reference to this matter: "It seemed to the Board that where these twelve-ride tickets are now effective there would be little demand for season tickets. If it should prove otherwise, the Board is prepared, upon petition, to consider the extension of the revised schedule of season ticket rates so as to include Boston and the suburban zone."

It appearing, after a public hearing and further investigation,

that a sufficient demand therefor has been disclosed, the Board recommends that the present schedule of uniform rates for monthly season tickets be made effective between Boston and all points within the suburban zone where the twelve-ride commutation tickets authorized by chapter 649 of the Acts of 1908 are now effective.

By the Board,

CHARLES E. MANN,

FEBRUARY 18, 1913.

[R. R. C. 9217]

Clerk.

Recommendation of the board of railroad commissioners relative to pupils' commutation tickets.

The recommendation of the Board relative to monthly commutation tickets, adopted December 5, 1912, provided for the issuance of monthly tickets by railroad corporations to certain classes of pupils at reduced rates. The Board in this recommendation attempted to apply to railroad companies the policy which the legislature had already defined in the case of street railway companies by the provisions of chapter 567 of the Acts of 1910.

When the recommendation of the Board became effective, on January 1, 1913, the railroad companies withdrew the reduced rates which they had heretofore granted to certain classes of pupils who were not within the provisions of the recommendation. This action of the company was made the subject of complaint to the Board.

Without attempting at this time to define to what extent the Board in the exercise of its authority might properly recommend the issuance of pupils' tickets at reduced rates to any of the classes of pupils referred to, the Board has secured, through the friendly co-operation of the various railroad companies, their agreement to a modification of the recommendation of the Board adopted December 5, 1912. The Board therefore makes the following recommendation in amendment of its recommendation dated December 5, 1912, and in substitution for the second paragraph thereof:

Every railroad corporation engaged in the transportation of passengers within the commonwealth, except the Boston, Revere Beach and Lynn Railroad Company, shall issue a monthly pupils' ticket good for forty-six rides between any two stations on its lines to pupils under twenty-one years of age, attending public schools, normal schools, in-

dustrial schools, technical schools, business schools, private schools, colleges, special schools of music, theology, medicine, law and dentistry, and schools where higher branches of education are taught, upon presentation of a certificate signed by the principal of the school and parent or guardian of the applicant, and which shall set forth that the applicant receives no pecuniary compensation for service to said school or its teachers, and that the ticket will be used solely for the purpose of travelling to and from school. The price of such tickets shall not exceed one-half the price charged for the regular monthly sixty-ride tickets, provided, however, that the amount in each case shall be raised sufficiently to be divisible by five, and that a minimum price of two dollars may be charged for a distance of six miles or less.

This recommendation is to become effective May 15, 1913.

By the Board,

CHARLES E. MANN,

MAY 2, 1913. [R. R. C. 9153]

Clerk.

Petition of the Boston and Albany Railroad (New York Central and Hudson River Railroad Company, lessee) for extension of effective date of various tariffs of freight rates.

After consideration, it appearing that good cause has been shown, under the provisions of section 20 of chapter 784 of the Acts of 1913, — it is

Ordered, That the Boston and Albany Railroad (New York Central and Hudson River Railroad Company, lessee) be hereby authorized to issue on one day's notice to the public and Commission a notice as a supplement to the tariffs of freight rates containing advanced rates filed with the Commission effective November 15, 1913, postponing the effective date thereof until March 12, 1914. Said supplements shall be filed and posted under an effective date of not later than November 14, 1913, and bear the following notation: "Issued on one (1) day's notice to the public and Commission under special permission of the Massachusetts Public Service Commission, No. 220, of November 10, 1913." This action is in no wise to be considered as a precedent for future action of the Commission in similar cases.

Attest: ANDREW A. HIGHLANDS,

NOVEMBER 10, 1913. [P. S. C. 220]

Secretary.

Petition of the Boston and Maine Railroad for approval of change in form of ten, twelve, twenty-five and fifty trip tickets, and of monthly commutation and pupils' tickets.

After consideration, — it is

Ordered, That the approval of the Commission be hereby given to the form of punch card ticket proposed to be used by the Boston and Maine Railroad in place of the present coupon style of ten, twelve, twenty-five and fifty trip tickets and of the monthly commutation and pupils' tickets, as outlined in the petition, dated August 15, 1913, and to the conditions therein named.

Attest: CHARLES E. MANN,
SEPTEMBER 2, 1913. [P. S. C. 89] Secretary.

Petition of the Boston and Maine Railroad for authority to issue to pupils of the Lowell Textile School monthly commutation tickets with two months' limit instead of one month.

After consideration, it appearing that good cause has been shown under the provisions of section 20 of chapter 784 of the Acts of 1913, for the issuance to pupils of the Lowell Textile School of 46-ride students' tickets with two months' limit instead of one, as specified in the petition dated October 9, 1913, — it is

Ordered, That the Boston and Maine Railroad be authorized to issue tickets to the pupils of the Lowell Textile School, as specified above.

Attest: CHARLES E. MANN,
OCTOBER 24, 1913. [P. S. C. 187] Secretary.

Petition of the Boston and Maine Railroad for authority to collect lower charges for the transportation of garbage moved under a higher rate.

After consideration, it appearing that good cause has been shown under the provisions of section 20 of chapter 784 of the Acts of 1913, for the collection by the Boston and Maine Railroad of lower charges for the transportation of garbage from Boston or Mystic Wharf to Wilmington Junction and Tewksbury Junction, moved under a higher rate and previous to the effective date of the lower rate, as specified in the petition dated October 18, 1913, — it is

Ordered, That the collection by the Boston and Maine Railroad of lower charges for the transportation of garbage, as specified above, be authorized, this action in no wise to be considered as a precedent for future action of the Commission in similar cases.

OCTOBER 24, 1913. Attest: CHARLES E. MANN,
[P. S. C. 196] Secretary.

Petition of the Boston and Maine Railroad for authority to make a certain rate for the transportation of cider apples effective on less than statutory notice.

After consideration, it appearing that good cause has been shown under the provisions of section 20 of chapter 784 of the Acts of 1913, for the making of a rate by the Boston and Maine Railroad for the transportation of cider apples from Shelburne Falls, as specified in the petition dated October 18, 1913, without requiring the thirty days' notice provided in said section, — it is

Ordered, That said rate, without the thirty days' notice, be allowed.

OCTOBER 24, 1913. Attest: CHARLES E. MANN,
[P. S. C. 194] Secretary.

Petition of the Boston and Maine Railroad for permission to give free or reduced service to the Frances E. Willard Settlement in Bedford.

The petitioner requests authority, under the provisions of section 18 of chapter 784 of the Acts of 1913, to give free or reduced service, for charitable purposes, to the Frances E. Willard Settlement in Bedford.

After consideration, — it is

Ordered, That the Commission approve the giving of free or reduced service to the Frances E. Willard Settlement in Bedford, upon the understanding that this action shall not be construed as establishing a precedent for similar action in the future.

NOVEMBER 3, 1913. Attest: ANDREW A. HIGHLANDS,
[P. S. C. 204] Secretary.

Petition of the Boston and Maine Railroad for authority to issue supplement to tariff relative to the transportation of parties of ten or more on less than statutory notice.

After consideration, it appearing that good cause has been shown, under the provisions of section 20 of chapter 784 of the Acts of 1913, for the issuing of a supplement to tariff I. C. C. No. 3771, relative to the transportation of parties of ten or more, as specified in the petition dated December 8, 1913, without the thirty days' notice provided in said section, — it is

Ordered, That the Boston and Maine Railroad be hereby authorized to issue a supplement to tariff I. C. C. No. 3771, on less than statutory notice, this action in no wise to be considered as a precedent for future action of the Commission in similar cases.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 19, 1913. [P. S. C. 272] Secretary.

Petition of the Boston and Maine Railroad for authority to re-issue tariff restoring rate on envelopes on less than statutory notice.

After consideration, it appearing that good cause has been shown, under the provisions of section 20 of chapter 784 of the Acts of 1913, for the re-issue by the Boston and Maine Railroad, on less than statutory notice, of tariff M. P. S. C. No. 747, restoring the rate on envelopes from Holyoke and Springfield to Worcester and from Worcester to Holyoke and Springfield, as specified in the petition dated December 17, 1913, — it is

Ordered, That the Boston and Maine Railroad be hereby authorized to re-issue tariff M. P. S. C. No. 747, on less than statutory notice, this action in no wise to be considered as a precedent for future action of the Commission in similar cases.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 19, 1913. [P. S. C. 281] Secretary.

Petition of the Boston, Revere Beach and Lynn Railroad Company for permission to give free transportation for certain charitable purposes.

The petitioner requests authority, under the provisions of section eighteen of chapter 784 of the Acts of 1913, to give free transporta-

tion for charitable purposes to the Home for Destitute Catholic Children, Boston, the House of Good Will, East Boston, and the Lynn Vacation School.

After consideration, in view of the fact that railroad corporations have heretofore granted free transportation to charitable organizations, and that such organizations have made their plans anticipating that no change will be made in that respect, — it is

Ordered, That the Commission approve the giving of free transportation to the inmates of the institutions named, upon the understanding that this action shall not be construed as establishing a precedent for similar action in the future.

Attest: CHARLES E. MANN,
JULY 31, 1913. [P. S. C. 49] Secretary.

A similar order was issued to the Boston, Revere Beach and Lynn Railroad Company, dated August 5, 1913, authorizing the giving of free transportation to the Salvation Army of Boston. [P. S. C. 49]

Petition of Russell R. Whitman and others for later passenger train service from Boston.

J. T. AUERBACH for petitioners.

J. J. CORBETT for City of Boston.

H. M. BISCOE for Boston and Albany Railroad Company.

C. M. BURT for Boston and Maine Railroad.

A. B. SMITH for New York, New Haven and Hartford Railroad Company.

A public hearing was given on this petition on December 4, 1912, followed at a later date by a conference with the Board between representatives of the petitioners and the railroad companies.

After further consideration of the matter, the Board recommends that for a trial period of three months, beginning February 3, 1913, later passenger train service be established on the Boston and Maine and the New York, New Haven and Hartford railroads as shown by the following schedule:

Boston and Maine railroad.

<i>Portland division.</i>			<i>Southern division.</i>		
Lv. Boston, . . .	12.01	A.M.	Lv. Boston, . . .	12.01	A.M.
Malden, . . .	12.11	"	Prospect Hill, . .	12.06	"
Oak Grove, . . .	12.13	"	Winter Hill, . . .	12.08	"
Wyoming, . . .	12.15	"	Somerville Jct., .	12.10	"
Melrose, . . .	12.17	"	North Somerville, .	12.13	"
Melrose Highlands,	12.20	"	Tufts College, . .	12.15	"
Greenwood, . . .	12.23	"	Medford Hillside, .	12.17	"
Wakefield Jct., .	12.26	"	West Medford, . .	12.20	"
Wakefield, . . .	12.28	"	Wedgemere, . . .	12.25	"
Reading, . . .	12.32	"	Winchester, . . .	12.27	"
*North Wilmington,	12.39	"	Cross Street, . . .	12.30	"
*Ballardvale, . .	12.47	"	Woburn Highlands,	12.33	"
Andover, . . .	12.52	"	Woburn, . . .	12.35	"
South Lawrence, .	1.00	"	Central Square, . .	12.38	"
North Andover, .	1.04	"	North Woburn, . .	12.42	"
*Ward Hill, . . .	1.10	"	Wilmington, . . .	12.48	"
Bradford, . . .	1.14	"	*Silver Lake, . . .	12.51	"
Ar. Haverhill, . .	1.16	"	*East Billerica, .	12.56	"
			*North Billerica, .	1.02	"
			*South Lowell, . .	1.04	"
			*Bleachery, . . .	1.06	"
			Ar. Lowell, . . .	1.10	"

* Stops to leave passengers on notice to conductor.

*New York, New Haven and Hartford railroad.**Boston and Old Colony divisions.*

Lv. Boston, ...	12.05	A.M.
Wollaston, ...	12.19	"
Quincy, ...	12.23	"
Braintree, ...	12.29	"
South Braintree, ...	12.33	"
Holbrook, ...	12.41	"
Avon, ...	12.45	"
Montello, ...	12.49	"
Brockton, ...	12.55	"
Ar. Campello, ...	1.00	"

At the expiration of the above named period, the Board will make such further or other recommendation in the premises as seems warranted, and in the meantime requests that a count of the number of passengers patronizing these trains be taken by the companies and a detailed report thereof made to this office at the end of each month.

By the Board,

CHARLES E. MANN,

JANUARY 20, 1913.

[R. R. C. 9128]

Clerk.

Petition of residents of Ashcroft relative to the stopping of additional trains on the New York, New Haven and Hartford railroad at that station.

Memorandum.

At the hearing on this matter held April 29, 1913, the Company agreed:

1. To stop at Ashcroft the train due to leave Norwood Central for Boston at 5.32 P.M., beginning April 30, 1913.

2. To make Ashcroft a regular stop, instead of a flag stop, for the train due to leave Boston for Norwood Central at 5.27 P.M.

The Board does not deem it advisable to recommend the stopping at the Ashcroft station of other trains mentioned in the petition and at the hearing.

APRIL 29, 1913. [R. R. C. 9304]

Recommendation of the board of railroad commissioners relative to train service of the New York, New Haven and Hartford railroad at Mansfield.

After conference with patrons of the railroad and its official representatives, and further consideration, the Board recommends that the New York, New Haven and Hartford Railroad Company resume the stopping at Mansfield of the train due to leave Taunton for Boston at 6.33 P.M.

By the Board,

CHARLES E. MANN,

MAY 28, 1913. [R. R. C. 9379]

Clerk.

Petition of patrons of the New York, New Haven and Hartford railroad relative to service on the Nantasket Beach branch.

This is a petition of residents of the town of Hull for the restoration of a passenger train service on the New York, New Haven and Hartford railroad that existed prior to 1911, by which patrons of the train leaving Hull at about 8 o'clock A.M. for Boston, on the Nantasket Beach branch, had the benefit of a connecting express service from Nantasket Junction during the winter months.

While a restoration of this service would undoubtedly be an accommodation to the patrons of the road represented by the peti-

tioners, the Commission is of the opinion that the resulting inconvenience to another portion of the traveling public on this branch and on the main line would not justify a change in present schedules. The petition is, therefore, dismissed.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 23, 1913. [P. S. C. 176] *Secretary.*

Petition of the selectmen of Wrentham and others that Lake Pearl be made a flag stop for all trains on the New York, New Haven and Hartford railroad during the summer schedule.

After notice, a hearing, at which no person appeared in behalf of the petition, and further investigation, it appearing that the summer schedule will provide that the same number of trains will stop at this flag station as under the summer schedule of 1912, and that these trains would appear to give adequate service in connection with that furnished by Wrentham and Wampum stations, — it is hereby

Ordered, That the petition be dismissed.

Attest: CHARLES E. MANN,
MAY 27, 1913. [R. R. C. 9303] *Clerk.*

Petition of the New York, New Haven and Hartford Railroad Company for authority to make certain rate for the transportation of apple pomace or apple waste effective on less than statutory notice.

After consideration, it appearing that good cause has been shown under the provisions of section 20 of chapter 784 of the Acts of 1913, for the making of a rate by the New York, New Haven and Hartford Railroad Company for the transportation of apple pomace or apple waste, as specified in the petition dated October 16, 1913, without requiring the thirty days' notice provided in said section, — it is

Ordered, That said rate, without the thirty days' notice, be allowed.

Attest: CHARLES E. MANN,
OCTOBER 24, 1913. [P. S. C. 193] *Secretary.*

Petition of the New York, New Haven and Hartford Railroad Company for approval of the making of a special minimum rate for a special train from Greenbush to Marshfield.

After consideration, it appearing that good cause has been shown, under the provisions of section 20 of chapter 784 of the Acts of 1913, for the making by the New York, New Haven and Hartford Railroad Company of a special minimum rate of \$25.00 for the operation of a special train from Greenbush to Marshfield, as set forth in the petition, — it is

Ordered, That the Commission approve the making of a special minimum rate of \$25.00, by the New York, New Haven and Hartford Railroad Company, for the operation of a special train as specified above, this action in no wise to be considered as a precedent for future action of the Commission in similar cases.

Attest: ANDREW A. HIGHLANDS,
NOVEMBER 7, 1913. [P. S. C. 215] Secretary.

Application of the New York, New Haven and Hartford Railroad Company for authority to make certain rates for the transportation of ice effective on less than thirty days' notice.

After consideration, it appearing that good cause has been shown under the provisions of section 20 of chapter 784 of the Acts of 1913, for certain changes in the rates charged by the New York, New Haven and Hartford Railroad Company for the transportation of ice between certain points as shown upon a schedule attached to this application dated July 22, 1913, and a further communication dated July 25, 1913, without requiring the thirty days' notice provided in said section, and in consideration of the fact that the rate department of this Commission has not yet been organized, — it is

Ordered, That said changes in said rates be allowed, this action to in no wise be considered as a precedent for future action of the Commission in similar cases.

Attest: CHARLES E. MANN,
JULY 30, 1913. [P. S. C. 48] Secretary.

Similar orders were issued to the New York, New Haven and Hartford Railroad Company, dated August 7, 1913, and August 15, 1913, for authority to make certain rates for the transportation of

ice between certain points effective on less than thirty days' notice, and on December 19, 1913, from Northborough to New Bedford. [P. S. C. 48]

Orders were issued to the Boston and Albany Railroad (New York Central and Hudson River Railroad Company, lessee) for authority to make rates for the transportation of ice between certain points effective on less than statutory notice, as follows: From Boston to Brookline, November 20, 1913; from Millbury, North Grafton, South Framingham and Westborough to Newton Lower Falls, December 2, 1913; from West Pittsfield to East Cambridge, December 2, 1913. [P. S. C. 238]

Orders were issued to the Boston and Maine Railroad for authority to make rates for the transportation of ice between certain points effective on less than thirty days' notice, as follows: From Athol to North Leominster, August 27, 1913; from Fitchburg to Boston, August 27, 1913; from Gardner to Amherst, September 16, 1913; from Heywoods and Gardner to Clinton and from Maynard to Waltham, October 2, 1913; from Marlborough to Boston, December 8, 1913. [P. S. C. 105]

STREET RAILWAY FARES AND SERVICE.

Petition of the board of survey of Arlington relative to the condition of the tracks of the Bay State Street Railway Company in that town.

After a public hearing and a view, and further consideration, — it is

Ordered, That the Bay State Street Railway Company make repairs on its railway in Mystic street in the town of Arlington, as follows:

(1) From the Winchester town line to the brow of the hill near the turnout, a distance of from 1,500 to 1,800 feet, the present track to be re-surfaced and re-aligned; new ties to be placed where needed, and the paving to be smoothed.

(2) For the balance of the track to Massachusetts avenue, the joints to be fixed; the corrugation on the rails to be ground out; the rails where wheels are riding on the flanges to be replaced; the paving on the brows where in bad condition to be relaid, and curves to be elevated.

The above repairs shall be completed at the earliest reasonable date.

Attest:
AUGUST 27, 1913. [P. S. C. 52]

CHARLES E. MANN,
Secretary.

Petition of the Cambridge Board of Trade relative to service on the Boston Elevated railway.

FRED W. DALLINGER for petition.

JAMES F. AYLWARD for City of Cambridge.

MATTHEW C. BRUSH for Boston Elevated Railway Company.

After a public hearing and a careful study of transportation conditions in the city of Cambridge, the Board is of the opinion that the complaints in regard to street railway service since the completion of the Cambridge subway have been due in large measure to the irregularity of service resulting from the bunching and uneven distribution of cars upon the surface lines of the Boston Elevated Railway Company in that city.

This situation is not peculiar to the city of Cambridge, as it is difficult, if not impossible, to secure absolute regularity of street railway service wherever surface lines are operated over congested city streets. While this difficulty is due to conditions inherent in the street railway service, it has been greatly aggravated in many cases by the multiplication of delays and interruptions of service on account of the length of the route traversed.

In the recommendations hereinafter made the Board has attempted to secure a greater regularity of service, by reducing the length of certain routes now operated, by re-routing certain lines so as to make it possible to feed in extra cars for inbound travel where the outward service has been delayed or disarranged, and by operating short shuttle lines which may be expected to give a regular and dependable service for local travel.

In addition to a greater regularity in the service now furnished by the company, the Board believes that a greater number of cars is needed on certain lines during certain hours, and provision has been made therefor.

It has also seemed to the Board that there has been a lack of proper co-ordination between the surface car lines and the trains operated through the Cambridge subway. We have therefore recommended certain extensions of existing transfer privileges between the surface lines and the subway.

Since the date of the hearing the company, upon the recommendation of the Board, has already put into effect the following changes in operation:

1. The Harvard square-Cottage Farm line has been run via Broadway, Prospect street, Massachusetts avenue, Pearl street, Putnam avenue, Brookline street, Massachusetts avenue, Boylston street subway to Park street station.

2. A transfer privilege has been established at Central square good between the Cambridge end of the Harvard bridge and trains in the Cambridge subway running to and from Park street.

3. Transfer privileges have been extended to Cambridge passengers boarding outbound trains at Kendall square and Central square stations in the subway and boarding outbound surface cars at or after leaving Harvard square station, good for inbound Medford Hillside cars at Arlington Centre and, returning, for passengers boarding outbound Medford Hillside cars after leaving Powder House square good for inbound Massachusetts avenue cars at Arlington Centre.

4. A line of prepayment cars has been put into operation between North Cambridge and Belmont, running in conjunction with the Lexington and Lowell cars run through from Arlington to Belmont. The latter line is shortly to be cut off at Harvard square and the Belmont line will be operated exclusively by prepayment cars running to and from North Cambridge via Harvard square.

5. The service during the rush hours of the morning and evening between River street and Dudley street has been extended so as to run between Harvard square and Dudley street.

6. Proper changes have been made in the layout of tracks at North Cambridge carhouse, whereby sufficient prepayment cars can be operated between the through cars to take care of the local riding between North Cambridge and Harvard square.

In addition to these changes, which have already been put into operation, the Board recommends that the following changes in the existing service be put into effect in the immediate future:

1. The establishment of a transfer privilege at Harvard square so that passengers boarding a Harvard square-bound, Cambridge street car, after leaving the corner of Baldwin street and Cambridge street and paying a cash fare, shall be entitled to a transfer inbound on Massachusetts avenue, and passengers boarding a Harvard square-bound, Massachusetts avenue car, at or after leaving Central square and paying a cash fare, shall be entitled to a transfer at Harvard square inbound on Cambridge street to the corner of Baldwin street and Cambridge street.

2. The establishment of a transfer privilege so that passengers boarding a Harvard square-bound car, after leaving the corner of Baldwin street and Cambridge street, can, upon payment of a cash fare, secure a transfer inbound on the Cambridge subway trains, and passengers outbound from the Cambridge subway can secure a transfer at Harvard square to go inbound on Cambridge street as far as Baldwin street.

3. The establishment of a transfer privilege at Inman square which shall permit passengers boarding any car northbound across Prospect street at Central square or on Prospect street, and paying a cash fare, to transfer at Inman square to inbound East Cambridge viaduct cars and vice versa.

4. In order to provide greater regularity of service during the morning rush hours inbound and the evening rush hours outbound, certain cars coming from and going to points beyond North Cambridge in the morning and evening, respectively, shall not stop to take on passengers inbound and shall not stop to let off passengers outbound when the cars are filled or when they are unnecessarily delaying local cars directly behind them. Sufficient other cars running between Harvard square and North Cambridge for local riding shall be provided, so that the operation of express cars shall not result to the disadvantage of local passengers.

5. The Waverly and Huron avenue line shall be broken at Harvard square. During the normal hours of the day, the Waverly line shall run to Garden street only and during rush hours this line shall be extended through to the North Cambridge car house, taking the place of service now run between North Cambridge and Bennett street. The Huron avenue line shall be run from the Bennett street car house to Mount Auburn only. During the morning and evening rush hours an increased service shall be given over the present schedule, sufficient to fully provide for the needs of the Huron avenue patrons.

6. The discontinuance of the present line running from North Cambridge, through Beacon and Hampshire streets and Scollay square, to the South station. During the morning and evening rush hours, a line of cars shall be maintained, running at frequent intervals, from the North Cambridge car house over this route to Hanover street. In addition to this service, a shuttle line shall be operated with regularity, during normal hours as well as rush hours, between Porter square and Kendall square, over Beacon street and Hampshire street, with transfer privileges at either end of the line.

7. The discontinuance between North Cambridge and Harvard square of the present fifteen-minute service to Dudley street in the rush hours and the thirty-minute service in the normal hours now being maintained, and the operation between Harvard square and Dudley street only. The present North Cambridge, Dudley street line via Harvard square shall be maintained during certain hours on Sunday, as at present, and a regular fifteen-minute service through to North Cambridge shall be provided on Sundays and

holidays during the summer season. In addition to these changes, the present service between Harvard square and Dudley street is to be increased by running an additional number of cars during certain hours.

8. The establishment, for trial, of a shuttle service on a five-minute headway between Harvard square and Central square, during such hours as a careful checking of the regularity and frequency of the other service indicates as being necessary.

9. The termination of the present Oak square, Brighton line, now running to Hanover street, at the Green street loop, the maintenance of the present service between the Green street loop and Oak square, and the running of a line of cars at more frequent intervals between the Green street loop and Hanover street.

The Board believes that the changes recommended will lead to a substantial improvement of the street railway service in the city of Cambridge. The Board is prepared to make further recommendations with a view to the improvement of the service if experience demonstrates the necessity of so doing.

By the Board,

CHARLES E. MANN,

APRIL 15, 1913. [R. R. C. 9072]

Clerk.

Petition of H. LaRue Brown for establishment of additional transfer privileges at the junction of Massachusetts and Huntington avenues in the city of Boston.

After consideration, — it is

Ordered, That the Boston Elevated Railway Company remove its restriction regarding the issue of checks for transfer at Massachusetts and Huntington avenues in the city of Boston, so that cash passengers boarding inbound Huntington avenue cars at any point before reaching Massachusetts avenue may transfer at the junction of Massachusetts and Huntington avenues to cars for South Boston.

Attest: ANDREW A. HIGHLANDS,

NOVEMBER 26, 1913. [P. S. C. 246]

Secretary.

Application of the Boston Elevated Railway Company for approval of establishment of additional free transfer privileges at Arlington Centre.

After consideration, — it is

Ordered, That the approval of the Board be hereby given to the establishment by the Boston Elevated Railway Company of additional free transfer privileges at Arlington Centre, as follows:

1. Transfers to be issued from outward bound Medford Hillside cars to inward bound Massachusetts avenue cars, restricted to cash passengers boarding the car after leaving Powder House square.

2. Transfers to be issued from outward bound Massachusetts avenue cars to inward bound Medford Hillside cars, restricted to cash passengers boarding the car after leaving Harvard square station, Cambridge, and passengers entering Harvard square subway station and paying cash fare.

Attest: CHARLES E. MANN,

MARCH 4, 1913.

[R. R. C. 9202]

Clerk.

Additional transfer privileges by the Boston Elevated Railway Company were approved as follows:

Arlington, April 8, 1913 — At Arlington Centre: From outward bound Medford Hillside cars to inward bound Massachusetts avenue cars, restricted to cash passengers boarding the car after leaving Powder House square; from outward bound Massachusetts avenue cars to inward bound Medford Hillside cars, restricted to cash passengers boarding the car after leaving Harvard square station, Cambridge, and passengers entering the Kendall square, Central square and Harvard square stations of the Cambridge subway and paying cash fare. (Amendment of order of March 4, 1913.) [R. R. C. 9202]

Boston, March 20, 1913 — At Dorchester avenue and Summer street: From Summer street extension cars, bound toward Boston proper, to Federal street cars for Franklin street, Post Office square and beyond; from Federal street cars from Franklin street, Post Office square and beyond, to Summer street extension cars outward bound from Boston proper. [R. R. C. 9202]

Boston, March 25, 1913 — At Dorchester avenue and Summer street: Temporary transfer privileges, from Summer street extension cars, bound toward Boston proper, to Federal street cars for

Franklin street, Post Office square and beyond; from Federal street cars from Franklin street, Post Office square and beyond, to Summer street extension cars outward bound from Boston proper. (Amendment of order dated March 20, 1913.) [R. R. C. 9202]

Boston, March 31, 1913 — At Dorchester avenue and Summer street: Temporary transfer privileges from Summer street extension cars bound toward Boston proper to inward bound Summer street cars; from outward bound Summer street cars to Summer street extension cars outward bound from Boston proper. [R. R. C. 9202]

Boston, January 18, 1913 — At Massachusetts and Columbus avenues: From Northampton street cars, westbound, to inward bound Columbus avenue cars; from outward bound Columbus avenue cars to Northampton street cars, eastbound, restricted to passengers boarding the car after leaving the subway. [R. R. C. 9202]

Boston, March 17, 1913 — At Massachusetts and Columbus avenues: From inward bound cars reaching this point via Columbus avenue to Massachusetts avenue cars running to or beyond Huntington avenue; from cars running on Massachusetts avenue toward Columbus avenue from Cambridge, Boylston street or Huntington avenue to outward bound Columbus avenue cars, except to passengers boarding the car in the subway. [R. R. C. 9202]

Boston, January 18, 1913 — At Northampton and Tremont streets: From inward bound Tremont street cars to cars bound northwest for Cambridge or Boylston street via Northampton street and Columbus avenue and Massachusetts avenue, and to inward bound cars via Northampton street and Columbus avenue, or via Northampton street, Columbus, Massachusetts and Huntington avenues; from cars from Boylston street transfer station or Cambridge, and from outward bound cars running via Columbus avenue and Northampton street or Huntington, Massachusetts and Columbus avenues and Northampton street to outward bound Tremont street cars, restricted to passengers boarding the car after leaving the subway. [R. R. C. 9202]

Boston, January 24, 1913 — At Northampton and Tremont streets: From cars running from Dudley street station via Washington and Northampton streets to inward Tremont street cars; from outward Tremont street cars, restricted to passengers boarding the car south of the subway entrance at Pleasant street, to Northampton street cars, bound either east or west. [R. R. C. 9202]

Boston, November 26, 1913 — At Northampton and Tremont streets: Temporary transfer privilege, until the South and West

End line is restored to its regular route via Dartmouth street. [P. S. C. 245]

Boston, March 28, 1913 — At Park square: From inward bound cars from Brookline (Boston and Worcester line) to cars for South station, and from cars from South station to cars outward bound for Brookline (Boston and Worcester line). [R. R. C. 9202]

Boston, March 28, 1913 — At Public Garden entrance of the subway: From subway cars to cars for South station; from cars from South station to subway cars, restricted to passengers paying fare in cash. [R. R. C. 9202]

Boston, March 28, 1913 — At Tremont, Dover and Berkeley streets: From Dover street cars coming from South Boston to outward bound Tremont street cars, and from inward bound Tremont street cars to Dover street cars going to South Boston. [R. R. C. 9202]

Boston, May 1, 1913 — At Tremont, Dover and Berkeley streets: From Dover street cars from South Boston to outward bound Tremont street cars, except to passengers paying fare with transfer check from Dover street elevated station northbound; passengers paying fare with such transfers are not entitled to further transfer at Tremont and Northampton streets. From inward bound Tremont street cars to outward bound Dover street cars for South Boston; passengers paying fare with such transfer checks are not entitled to transfer southbound at Dover street elevated station. (Amendment of order of March 28, 1913.) [R. R. C. 9202]

Boston, April 15, 1913 — At Washington and Northampton streets: From Southampton street cars bound toward Roxbury, to cars for Roxbury Crossing via Northampton and Tremont streets; from inbound cars from Roxbury via Tremont and Northampton streets to Southampton street cars for South Boston, to passengers paying fare in cash or valid ticket. [R. R. C. 9202]

Boston, April 8, 1913 — At Washington, Summer and Winter streets: Between either northbound or southbound tunnel trains at Winter or Summer stations and Summer street cars reaching Washington street or looping via Franklin, Hawley and Summer streets and passing through Dewey square on the return trip. [R. R. C. 9202]

Boston (Allston), January 14, 1913 — At Brighton and Harvard avenues: From inward bound Newton-Brighton and Watertown-North Beacon street cars to inward bound Harvard avenue cars; from outward bound Harvard avenue cars to outward bound New-

ton-Brighton and Watertown-North Beacon street cars, except to passengers boarding the car in the subway. [R. R. C. 9202]

Boston (Brighton), March 17, 1913 — At Market and North Beacon streets: From inward bound Market street cars to outward bound North Beacon street cars, restricted to passengers paying cash fare at or after leaving Oak square car house; from inward bound North Beacon street cars to outward bound Market street cars, restricted to passengers paying cash fare after leaving Watertown square;

At Market and Arsenal streets: From inward bound Market street cars to outward bound Arsenal street cars, restricted to passengers paying cash fare at or after leaving Oak square; from inward bound Arsenal street cars to outward bound Market street cars, restricted to cash passengers received after leaving Watertown square. [R. R. C. 9202]

Boston (Dorchester), February 5, 1913 — At Franklin park, on Blue Hill avenue: Removal of a portion of the transfer privileges existing at Franklin field, so that inward bound passengers may transfer to any car starting at Franklin park, and that passengers on outward cars may transfer to outward bound cars of any other line. (The existing transfer from inward Blue Hill avenue cars to outward Talbot avenue cars and from inward Talbot avenue cars to outward Blue Hill avenue cars remains at Franklin field.) [R. R. C. 9202]

Boston (Dorchester), February 7, 1913 — At Dorchester avenue and Park street: From inward bound Adams street cars to outward bound Milton cars; from inward bound Milton cars to outward bound Adams street cars;

At Peabody square: From outward bound Dorchester avenue cars to inward bound Talbot avenue cars, restricted to passengers paying fare in cash after leaving the junction of Park street and Dorchester avenue; from outward bound Talbot avenue cars to inward bound Dorchester avenue cars, restricted to passengers boarding the car and paying fare at or after leaving Codman square. [R. R. C. 9202]

Boston (Dorchester), March 26, 1913 — At King square (junction of Adams street and Neponset avenue): From inward bound Neponset cars to outward bound Adams street cars, and from inward bound Adams street cars to outward bound Neponset cars. [R. R. C. 9202]

Boston (Dorchester), April 15, 1913 — At Codman square: From inbound cars to inbound cars of any other line; from outbound cars to outbound cars of any other line. [R. R. C. 9202]

Boston (Dorchester), May 1, 1913 — At Uphams corner: From inbound cars to inbound cars of any other line, and from outbound cars to outbound cars of any other line. [R. R. C. 9202]

Boston (Jamaica Plain), February 26, 1913 — At the Jamaica Plain car house: From inward bound cars from Forest Hills to inward South Huntington avenue cars; from outward South Huntington avenue cars to outward bound cars for Forest Hills, except to passengers boarding the car in the subway and passengers tendering check for transfer at Massachusetts and Huntington avenues. [R. R. C. 9202]

Boston (Jamaica Plain), April 15, 1913 — At Hyde square: From inbound cars to inbound cars of any other line, and from outbound cars to outbound cars of any other line. [R. R. C. 9202]

Boston (Roxbury), March 17, 1913 — At Warren and Dudley streets: From outward bound Warren street-Grove Hall night cars from Adams square to outward bound Geneva avenue-Meeting House Hill night cars. [R. R. C. 9202]

Boston (South Boston), July 7, 1913 — At Dorchester avenue and Broadway: Change in transfer privileges, so that checks may be issued and received for transfer at either Dorchester avenue and Broadway, or Dorchester avenue and Fourth street. [P. S. C. 3]

Brookline, April 28, 1913 — At Coolidge Corner: From outward bound Beacon street cars running to Allston or Reservoir to other outward bound Beacon street cars. [R. R. C. 9202]

Cambridge, March 4, 1913 — At Central square station: From inward bound night cars from Harvard square to inward bound Prospect street-East Cambridge night cars; from outward bound East Cambridge-Prospect street night cars to outward bound night cars for Harvard square. [R. R. C. 9202]

Everett, September 30, 1913 — Removal of restriction in connection with transfer privileges at junction of Broadway and Main street, so that passengers on inbound Main street cars may transfer to cars of the Woodlawn line. [P. S. C. 150]

Somerville, March 7, 1913 — At Broadway and Cross streets: From all inward bound cars running on Broadway, Somerville, to outward bound Highland avenue cars, to be issued only to cash passengers, and restricted on the Medford Hillside cars to passengers boarding the car after passing the Arlington-Medford line and restricted on Broadway line to passengers boarding the car after reaching Powder House square. Passengers paying fare with such transfer checks are not entitled to further free transfers;

From inward bound Highland avenue cars to outward bound Broadway cars, restricted to cash passengers boarding the car after

leaving Davis square. Passengers paying fare with such transfer checks are not entitled to free transfer at Arlington Centre. [R. R. C. 9202]

Somerville, March 17, 1913 — At Union square: To inward bound Springfield street or Webster avenue cars at Union square, from inward bound Broadway, Highland avenue and Magoun square cars running to Sullivan square, restricted to cash passengers boarding the car after leaving Teele square; from inward bound Medford Hillside cars, restricted to cash passengers boarding the car at or after leaving the Arlington-Medford line, and from Medford-Main street cars, restricted to passengers boarding the car on the inward trip. (To use these transfer checks, bodily transfer should be made at Sullivan square to the Union square line, and check presented on the Webster avenue or Springfield street car taken at Union square.)

From outward bound Springfield street or Webster avenue cars reaching Union square to inward bound Washington street cars, restricted to passengers paying fare in Cambridge or Somerville, except passengers tendering transfers at Kendall or Central square stations of the Cambridge subway, outbound. [R. R. C. 9202]

Somerville, April 7, 1913 — At Broadway and Main street: From inward bound Broadway or Medford Hillside cars to outward bound Medford-Main street cars, restricted to cash passengers received after leaving Arlington Centre. (Passengers paying fare with such transfer checks are not entitled to transfer to Arlington.) From inward bound Main street-Medford cars to outward bound Broadway or Medford Hillside cars, except to passengers paying fare with free transfer checks at West Medford. [R. R. C. 9202]

Petition of the mayor of Cambridge for the restoration of the Bay View line of the Boston Elevated railway in said city.

After hearing and further consideration, the Board recommends that the company extend the fifteen-minute service now operated from the River street car house by the way of Prospect street and Cambridge street to Scollay square and return, so as to run through to City Point by way of the subway to Pleasant street, down Dover street and over the Bay View route. This line shall be put into operation on May 15th next, and shall run until September 15th. It shall be operated on Sundays and holidays from 9 A.M. to 10.30 P.M., and on all other days from 10.30 A.M. to 10.30 P.M. A careful

count shall be made of the riding on this line and, as the traffic demands, it shall run at such earlier or later commencing or closing hour as in the opinion of this Board is deemed necessary.

By the Board,

CHARLES E. MANN,

APRIL 15, 1913.

[R. R. C. 9206]

Clerk.

Petition of the South Boston Citizens' Association and others relative to service on the Boston Elevated railway.

After a public hearing and further consideration, — it is

Ordered, That the Boston Elevated Railway Company re-establish forthwith the belt-line service, so called, between the Dorchester street transfer station in South Boston and Field's Corner in Dorchester, operating thereon, in opposite directions, two lines of cars, each upon a fifteen minute headway during normal hours of travel, through Dorchester and Boston streets, Columbia road, Hancock and Bowdoin streets, Geneva avenue, Park street, Dorchester avenue and Dorchester street; together with such additional cars during rush hours as the conditions of service may require.

It is

Further Ordered, That the Boston Elevated Railway Company maintain as a separate line the service now existing between the Dorchester street transfer station and the East Boston ferry.

Attest: ANDREW A. HIGHLANDS,

DECEMBER 10, 1913.

[P. S. C. 263]

Secretary.

Petition of residents of Winchester that cars for that town leaving Sullivan square in the city of Boston on the Boston Elevated railway be run express to Medford square in the city of Medford.

The petitioners, residents of the town of Winchester, requested the installation of an express service on cars of the Bay State street railway operated over the line of the Boston Elevated railway between Sullivan square and Medford square in the city of Medford. After a public hearing and further investigation, it appeared that

some method of operation which would tend to separate through travel from local travel on this line would conduce to improved service. In any adjustment of this kind through the installation of an express service, it is important, however, that a proper balance should be preserved between the interests of local and through passengers. It seemed to the Commission desirable that an express service during certain hours of the day should be maintained between Sullivan square and Winter Hill, Somerville, but that it would not be in the general public interest to have this express service extended through to Medford square. A rearrangement of service in conformity with the views of the Commission has been made by the company for an experimental period. As this service has tended to bring about improved conditions of transportation upon this line the Commission recommends that it be maintained.

For the Commission,

ANDREW A. HIGHLANDS,

DECEMBER 31, 1913.

[P. S. C. 326]

Secretary.

Petition of mayor and city solicitor of Beverly relative to fares and transfers, service and accommodations on the Bay State street railway.

The petitioners desired an extension of the transfer privileges on the lines of the Bay State street railway to Gloucester Crossing, so called, from Salem, at the Salem-Peabody line, on North street and Tremont street; at the Salem-Marblehead line and the Salem-Swampscott line on Loring avenue and at any intervening point between those and Townhouse square, Salem. The petitioners also desired better accommodations through the installation of larger cars upon the Beverly-Wenham line, the erection of a shelter on the Gloucester-Essex line at North Beverly and the employment of a starter at the waiting room in Beverly on Sundays and holidays.

The regular equipment on the Beverly-Wenham line during the winter season consists of double truck box cars. Single truck cars are used only as extras in cases of emergency or to accommodate exceptionally heavy travel. We believe that the amount of travel on this line is not such as to warrant the Commission in recommending at this time the installation of larger cars. As a result

of various conferences with the interested parties, the board of railroad commissioners suggested to the company that the other requests of the petitioners were reasonable and should be granted. In compliance with this suggestion the company has already installed the transfer privileges requested, has erected a shelter on the Gloucester-Essex line at North Beverly and has employed a starter at the waiting room in Beverly in cases of heavy travel. We believe that the improvements indicated in the service and accommodations furnished by the Bay State Street Railway Company in the city of Beverly substantially meet the complaints presented.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 315] Secretary.

Petition of the L. Q. White Shoe Company for the establishment of a five-cent fare for workmen on the Bay State street railway between Bridgewater and Brockton.

Passengers desiring to ride between Bridgewater and Brockton may do so either by way of the East Bridgewater line or by way of the West Bridgewater line.

The regular cash fare by either line is ten cents. A workmen's ticket, good during certain morning and evening hours, is also issued at the rate of seven cents per ride. The fare limit on this ticket by way of West Bridgewater extends from Brockton to Bridgewater Center, but by way of East Bridgewater, extends only to the Bridgewater-East Bridgewater line. The holders of these seven-cent tickets are also entitled to free transfer privileges in the city of Brockton, which enable them to ride a total distance of about sixteen miles.

The petitioners ask for the establishment of a five-cent fare for transportation between Bridgewater Center and Brockton by way of East Bridgewater, and also by way of West Bridgewater. The distance between these points is something over nine miles.

In the opinion of the Commission, the existing rates of fare are as low as the company can reasonably be asked to furnish. It seems to the Commission, however, that there is no sufficient reason why the seven-cent fare from Bridgewater Center to Brockton

should not be available by way of the East Bridgewater line as well as by way of the West Bridgewater line. The Commission, therefore, recommends that the through fares from Bridgewater Center to Brockton by way of East Bridgewater be the same as the existing fares between these points by way of West Bridgewater.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 318] *Secretary.*

Petition of residents of that part of Dracut called Collinsville relative to transfers on the Bay State street railway between Collinsville and Lowell.

The residents of Collinsville now receive transportation on the lines of the Bay State street railway during all hours of the day to Merrimack square in the city of Lowell, without transfer privileges, for a five-cent fare. For the accommodation of workingmen free transfer privileges at Merrimack square in the city of Lowell are granted during certain hours of the day to passengers to and from Collinsville who have paid a five-cent fare. The petitioners request that similar transfer privileges be given during all hours of the day.

It appears that on the line of the Bay State street railway, which serves the village of Collinsville, the limits of the five-cent fare during normal hours of the day extend from Merrimack square in the city of Lowell to Lake View Park in the town of Dracut, a distance of 5.21 miles. A longer ride for a five-cent fare is now given upon this line than is given on any other line diverging from Merrimack square in the city of Lowell. If the request of the petitioners should be granted, the Commission could not, without discrimination, refuse a similar modification and extension of fare limits in a number of other communities adjacent to the city of Lowell. Such a disturbance in the existing fare situation in and around the city of Lowell would result in a substantial impairment of the company's revenue which the Commission does not feel warranted in recommending at this time in view of the financial condition of the company and the necessity of further expenditures for the improvement of the roadbed and equipment upon various

portions of the company's lines in order to enable them to furnish more satisfactory service and accommodations to the travelling public.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 317] Secretary.

Petition of the selectmen of Essex relative to service on the Bay State street railway.

The petitioners complained of irregularity of service and the poor condition of the roadbed and track on the line of the Bay State street railway in the town of Essex. Soon after the hearing on this petition a careful inspection of this line was made by a member of the Commission and one of the inspectors in its employ. As the roadbed and track were found to be in an unsatisfactory condition, the Commission recommended that the company should make substantial improvements upon this line. Approximately one mile of new track has been built in the town of Essex, and the condition of the entire line between Gloucester and Beverly has been improved. The roadbed and track are now in fair condition, but additional repairs are still needed to bring the road up to a proper standard. The Commission therefore recommends that additional improvements be made upon this line during the summer season of 1914.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 314] Secretary.

Petition of citizens of Lawrence, Methuen, Andover and North Andover relative to service on the Bay State street railway in the city of Lawrence and vicinity.

The petitioners complained of irregularity of service and overcrowding of cars on the lines of the Bay State street railway in Lawrence, Methuen, Andover and North Andover.

After a hearing on this matter and investigation by the board of railroad commissioners, it was found that the petitioners had a legitimate cause of complaint in regard to the service and accom-

modations on this line. It was also found that the irregularity and congestion of service was due in large measure to the necessity of operating the street car service of the company over a single line of track on Newbury street in the city of Lawrence. On the recommendation of the Board, Newbury street has been double tracked by the company, additional cars have been put in service and more cars have been ordered upon the Lawrence division of the Bay State street railway.

While the exceedingly heavy travel upon these lines during the rush hours makes it almost impossible to avoid occasional crowding of cars, the changes made have resulted in a great improvement in this service. The Commission will continue to observe conditions on these lines in order to see that a reasonable standard of service and accommodations is maintained by the company.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 321] *Secretary.*

Petition of citizens and taxpayers of Lynnfield relative to service, transfers and fares on the Bay State street railway.

The petitioners desire a five-cent fare from any part of Lynnfield to Central square, Lynn, either by way of Saugus or Newhall's turnout, Peabody. Complaint was also made of the condition of the roadbed, track and equipment on this line.

Owing to the small amount of travel it is probable that this line is now operated at a loss to the company. Favorable action upon the request of the petitioners would involve the granting of a five-cent fare for transportation for a maximum distance of over nine miles. In view of the small amount of revenue received from this line the extension of fare limits requested by the petitioners is unreasonable and should not be granted.

The complaints made by the petitioners in regard to the condition of the roadbed and equipment on this line appeared, however, to be fully warranted. The Commission, therefore, recommended to the company that substantial improvements should be made upon this line. Something has already been done in that direction but much more remains to be accomplished. We understand that the company is arranging for a conference with representatives of the town relative to further improvements upon this line. The Com-

mission will keep itself advised in regard to the progress that is being made, and will see that substantial additional improvements upon this line are made during the season of 1914.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 319] *Secretary.*

Petitions of committee on transportation of city council of Salem and of residents of Lynn and Salem for reduction of fares on the Bay State street railway between Salem and Lynn.

The petitioners requested the establishment of a five-cent fare between the city of Salem and the city of Lynn, both on the Highland avenue line and on the Loring avenue line. This petition is in substance a renewal of a petition to the board of railroad commissioners by the mayor and city solicitor of Salem for reduction of fares on the Boston and Northern street railway, upon which an order was issued by the Board on May 1, 1909. At the hearing on the present petition certain parties who appeared in support of the petition claimed that when the Lynn and Boston Railroad Company was granted a location by the board of aldermen of the city of Salem for the construction of the Highland avenue line the company promised a fifteen-cent fare from Salem to Boston and a five-cent fare from Salem to Lynn, and that the Bay State Street Railway Company, as the successor in title to the Lynn and Boston Railroad Company, was morally bound by the promise then made. No reference to any such engagement on the part of the company appears in the grant of location. After a careful investigation, which included an examination of the various articles which appeared in the local newspapers at the time the question of the grant of location was pending, the Commission has been unable to find adequate evidence to substantiate the claim that any such promise was made by the company.

As this was the only new phase of the case developed at this hearing it does not seem that sufficient cause has been shown for a reversal of the order made by the board of railroad commissioners in 1909. The petition is therefore dismissed.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 122, 324] *Secretary.*

Petition of residents and property holders of Hough's Neck in the city of Quincy relative to conditions on the Hough's Neck line of the Bay State street railway.

Upon this petition a public hearing was given, and, after further consideration, the Board is of the opinion that the traffic on this line has increased to such an extent that the installation of additional turnouts and signals is necessary in order to facilitate the operation of cars.

We therefore recommend that the Bay State Street Railway Company make application to the proper authorities of the city of Quincy for the necessary locations, and, if secured, that in the spring and early summer of 1913 turnouts and signals be installed on the line of the company in that city, as follows: (1) On Coddington street or Sea street near the intersection of Valley street, and (2) about midway on the single track between Church siding and the junction of Shelton road and Sea street.

By the Board,

CHARLES E. MANN,

MARCH 15, 1913.

[R. R. C. 8984]

Clerk.

Petition of selectmen of Stoughton and the committee on transportation of the Stoughton board of trade relative to fares and service on the Bay State street railway between Stoughton and Brockton.

The petitioners request the establishment of a five-cent fare for the transportation of passengers between Stoughton and Center street, Brockton. The petitioners also complained of failure on the part of the company to provide a suitable number of cars during rush hours for the reasonable accommodation of the public desiring conveyance over the lines of said street railway company from Center street, in Brockton, to Stoughton. It appears that the regular rate of fare between Stoughton and Center street, Brockton, with free transfer privileges at the latter point, is ten cents. A commutation ticket covering the same transportation, good during all hours of the day, is also issued at the rate of seven and one-seventh cents per ride.

The distance from Stoughton Center to Brockton Center is about

six miles. As already stated, passengers paying the regular ten-cent fare or the commutation fare of seven and one-seventh cents are also given free transfers at Center street, Brockton, which enable them to ride a maximum distance of about twelve miles.

In compliance with an order of the board of railroad commissioners under date of June 18, 1901, a five-cent fare for the benefit of working people was established during certain hours of the day between Stoughton and Center street, Brockton, without transfer privileges. The petitioners desire that this five-cent fare should be available during all hours of the day. The Commission is of opinion that the existing rates of fare, in view of the conditions in this case, and in comparison with other street railway fares in the commonwealth, are not unreasonable, and therefore makes no order or recommendation in regard to any change in the existing fare situation between Stoughton and Brockton.

The petitioners, however, seem to be justified in the complaints which they made in regard to irregularity of service and inadequate accommodations on this line. On the recommendation of the Board, an express service was installed on the Stoughton-Brockton line, which tends to separate the local from the through traffic, and thus to afford improved accommodations for the residents of the town of Stoughton. Since this change was inaugurated no complaints have reached the Commission in regard to service and accommodations for through travel on this line. If complaint should be made in the future the Commission will recommend such additional improvements in the transportation facilities as conditions may require.

For the Commission,

ANDREW A. HIGHLANDS,

DECEMBER 31, 1913.

[P. S. C. 316]

Secretary.

Petition of selectmen of Whitman relative to transfers on the Bay State street railway from Brockton to Whitman.

The petitioners request free transfer privileges to enable them to ride between the center of Brockton and any part of Whitman for a five-cent fare. Several years ago the fare from the center of Brockton to the center of Whitman was reduced from ten cents to five cents by recommendation of the board of railroad commissioners. Later the company, of its own volition, extended the fare limit so that passengers could ride from the center of Brockton

through to Winter street, Whitman, for a five-cent fare. Seven-cent commutation tickets are also furnished during certain hours of the day from any part of Whitman to any part of Brockton. These tickets are good for transportation for a maximum distance, including transfers, of 12.24 miles.

The situation in this case is substantially parallel to that in the town of Abington where a similar request was recently presented to the board of railroad commissioners and was acted upon adversely. The Commission is of the opinion that street railway transportation is now furnished to the residents of Brockton and adjacent towns at as low rates as prevail in any portion of the state where similar conditions of transportation exist, and at as low rates as the company can reasonably be asked to furnish, consistent with a proper maintenance of its service.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 320] *Secretary.*

Petition of Eugene H. Mather, receiver, relative to fares on the Dedham and Franklin street railway.

After notice and hearing and further consideration, it appearing that by agreement between the towns served by the Dedham and Franklin street railway and the receiver, which agreement was approved by the Supreme Judicial Court, there was established on February 14, 1913, the following schedule of fares, which was to remain in force until a schedule of fares should be established by the board of railroad commissioners:

Between Dedham square and Dedham-Westwood town line five cents;
Between Dedham-Westwood town line and Dover-Westwood town line five cents;
Between Dover-Westwood town line and Medfield square five cents;
And that coupon or book tickets should be sold at the rate of twenty-five for two dollars, each of which should entitle the holder thereof to transportation between Dedham square and Dover-Westwood town line;

and it further appearing that the receipts of this road under the present schedule of fares and tickets have not been sufficient to pay

the operating expenses and interest charges even during the spring and summer months, which are the seasons of largest receipts, — it is

Ordered, That the following rates of fare be established upon the Dedham and Franklin street railway:

Between Dedham square and Dedham-Westwood town line five cents;

Between Dedham-Westwood town line and Dover-Westwood town line five cents;

Between Dover-Westwood town line and Medfield square five cents.

By the Commission,

CHARLES E. MANN,

SEPTEMBER 12, 1913.

[R. R. C. 9351]

Secretary.

Petition of Eugene H. Mather, receiver, relative to fares on the Medfield and Medway street railway.

After notice and hearing and further consideration, it appearing that the receipts of the Medfield and Medway street railway under the present schedule of fares have not been sufficient to pay operating expenses and interest charges, — it is

Ordered, That the following rates of fare be established upon the Medfield and Medway street railway:

Between Medfield square and a convenient point near the steam railroad station in Millis five cents;

Between said point near the steam railroad station in Millis and the Medway-Millis town line five cents;

Between the Medway-Millis town line and the Medway-Franklin town line five cents;

Between the Medway-Franklin town line and Trentham's turnout in the town of Franklin five cents;

Between Trentham's turnout and Franklin square five cents.

By the Commission,

CHARLES E. MANN,

SEPTEMBER 12, 1913.

[R. R. C. 9352]

Secretary.

Petition of the board of aldermen of the city of Waltham for the restoration of free transfers on the Middlesex and Boston street railway.

The Board has given a public hearing and made a thorough investigation of the present financial condition of the Middlesex and Boston Street Railway Company. Reference is made to an order of the Board dated July 31, 1908, upon the petition of the Newton Street Railway Company, and subsequent orders upon the petitions of the Middlesex and Boston Street Railway Company, dated respectively August 4, 1909, August 9, 1910, and August 3, 1911.

In view of the financial condition of the Middlesex and Boston Street Railway Company and of the amount necessary to be expended upon its property for needed improvements, in order to maintain a satisfactory service, the Board is of the opinion that a reduction in its income at this time would not be in the public interest.

The petition is therefore dismissed.

For the Board,

CHARLES E. MANN,

FEBRUARY 11, 1913.

[R. R. C. 9104]

Clerk.

Petition of citizens of Holliston relative to fares on the Milford and Uxbridge street railway between Holliston and South Framingham.

WILLIAM M. PREST for petitioners.

WENDELL WILLIAMS for Milford and Uxbridge Street Railway Company.

The line of street railway between Holliston and South Framingham was constructed by the Milford, Holliston and Framingham Street Railway Company, which commenced operations on May 15, 1896, and was subsequently purchased by and consolidated with the respondent company. A short time after the road was built a five-cent fare was established between Holliston Centre and South Framingham. In the grant of a location by the town of Holliston, dated May 22, 1900, and endorsed with the acceptance of the company, it was stipulated that "the rates of fare now established from Holliston shall not be increased." A few years later the company extended the fare limits so as to permit passengers to ride from

Highland street in Holliston to South Framingham for a single five-cent fare. This rate of fare was continued until 1909, when it was increased to ten cents.

As the result of this increase the towns of Framingham and Holliston filed a petition with the Board requesting a restoration of the old rate of fare. On October 22, 1910, the Board issued an order thereon, in which the view was expressed that "the existing unit of fare for a single ride is not unreasonable". The Board, however, recommended that "some concession should be made with respect to the workingmen's ticket, so called".

Pursuant to this recommendation, the company has issued special tickets good during certain hours of the day, between Highland street, in Holliston, and South Framingham, at the rate of fifteen rides for one dollar. The petition now under consideration requests a reduction of the general rate of fare between these points.

So far as relates to the stipulation in the grant of location by the town of Holliston that the rates of fare from Holliston should not be increased, we desire to quote from an order of the Board, dated April 13, 1905, upon the complaint of the selectmen of North Brookfield concerning fares on the Warren, Brookfield and Spencer street railway, which involved the consideration of a similar situation:

The chief contention of the complainants is that the change from a five-cent to a six-cent fare violates a condition of the location. The supreme court has held that such a condition has not the binding force of a contract, and that notwithstanding the acceptance of the location a company is free to establish what it deems to be proper charges, subject to the jurisdiction of this Board over the reasonableness of such charges.

The only question before the Board is, then, whether the fare of which complaint is made is reasonable. It would be plainly unjust to declare a fare reasonable which is so low as to lead to the bankruptcy of a company, through the gradual exhaustion of its assets. On the other hand, promoters of an enterprise who have promised to maintain a stated fare as an inducement for a grant of location are bound to make a thorough attempt to carry out the promise, though this attempt may mean a sacrifice of dividends and even some risk to capital.

In view of the present financial condition of the company, and the fact that the fare limits established at the time the grant of location was made in 1900 were subsequently extended, the petitioners admit that it would be unreasonable to ask the company to re-establish a five-cent fare between Highland street, in Holliston,

and South Framingham. The Board, however, is of the opinion, in view of all the circumstances, that the present rate of fare between these points should be reduced, so far as is consistent with the right of the company to receive a proper revenue for the services rendered and its obligation to make adequate provision for the maintenance of its plant.

The Board therefore recommends that during the next financial year beginning July 1, 1913, the company, while maintaining the present rate of fare for through travel between Milford and South Framingham, as well as the existing unit of fare for a single ride upon all portions of the company's line, shall furnish special tickets at the rate of fifteen rides for one dollar, which shall be available to all persons for local travel in both directions between all points on the company's line north of Highland street, in Holliston, and South Framingham. At the expiration of this experimental period the case may be reopened for such revision of the rates of fare or readjustment of the fare limits as may seem proper after a study of the revenues of the company.

By the Board,

CHARLES E. MANN,

FEBRUARY 11, 1913.

[R. R. C. 8198]

Clerk.

Petition of citizens and residents of Onset and vicinity relative to service on the New Bedford and Onset Street Railway.

JAMES M. HALL for petitioners.

H. H. CRAPO for New Bedford and Onset Street Railway Company.

After hearing and further consideration, the Board recommends that the company, from May 15 to October 1 of each year, maintain a car service between the village of Onset and the Onset Junction station of the New York, New Haven and Hartford Railroad Company, which shall connect with all trains of the latter company. This case may be re-opened by either party at any time after October 1, 1913, for such modification of this recommendation as may then seem proper.

By the Board,

CHARLES E. MANN,

APRIL 3, 1913.

[R. R. C. 9169]

Clerk.

Petitions of E. H. Vaughan, city solicitor of the city of Worcester, relative to the condition and operation of the Worcester Consolidated street railway.

E. H. VAUGHAN for City of Worcester.

F. H. DEWEY for Worcester Consolidated Street Railway Company.

E. P. SHAW, JR., for Boston and Worcester Street Railway Company.

Under date of February 18, 1913, the city solicitor of Worcester, by direction of the board of aldermen and with the approval of the mayor of said city, filed a petition requesting the Board to examine the condition and operation of the Worcester Consolidated street railway.

Subsequently, on March 11, 1913, the city solicitor filed a petition requesting the approval by the Board of an order adopted by the board of aldermen of said city on December 16, 1912, relative to the re-routing of cars of the Worcester Consolidated Street Railway Company and cars of other companies entering the city.

Following the receipt of these petitions the Board caused a thorough examination of the tracks, equipment, power plants and method of operation of the Worcester Consolidated street railway to be made, and public hearings were held on the matters of complaint on March 14 and April 9, 1913.

The Board finds:

(1) That the power provided by the Worcester Consolidated Street Railway Company is inadequate to properly operate, light and heat its cars at all times.

(2) That by reason of a shortage of equipment the management is unable to properly clean and repair its cars and provide reasonable service during rush hours.

(3) That the management does not provide proper facilities to enable its officers and employees to reach the various parts of its system promptly in cases of emergency.

(4) That under existing conditions the management is unable to maintain the present schedules for the operation of cars.

In view of the foregoing findings the Board makes the following recommendations:

(1) That the Worcester Consolidated Street Railway Company take immediate steps to provide sufficient power not only to properly operate, heat and light its present equipment, but to provide in advance for the future transportation needs of the territory it serves

and to make adequate provision for the duplication of power facilities in order that the serious interruptions to traffic that occur from time to time may be obviated.

(2) That the Worcester Consolidated Street Railway Company take immediate steps to provide a sufficient number of cars to enable it to keep its equipment properly cleaned and repaired, and provide a reasonable service during rush hours.

(3) That the Worcester Consolidated Street Railway Company provide proper facilities to enable its officers and employees to reach the various parts of its system promptly in cases of emergency.

With reference to the complaint made of irregularity in the operation of cars the Board is of the opinion that when the above recommendations are made effective the service rendered by the company in this respect will be materially improved.

The supplemental petition concerning the re-routing of cars in Worcester did not receive the substantial endorsement of the citizens of the city, and was seriously opposed by patrons of the railway entering and leaving the city on suburban lines. The Board makes no recommendation with respect thereto at this time, as it is of the opinion that this matter can be more intelligently considered when the improvements suggested have been carried into effect.

By the Board,

CHARLES E. MANN,

APRIL 28, 1913.

[R. R. C. 9248]

Clerk.

Petition of the selectmen of Blackstone relative to fares on the Worcester Consolidated street railway in said town.

JOHN F. MEANEY for petition.

F. H. DEWEY for Worcester Consolidated Street Railway Company.

The Worcester Consolidated Street Railway Company charges ten cents for its service in the town of Blackstone: a five-cent fare between the state line at Woonsocket and the village of Millville, a distance of 3.145 miles, and another five-cent fare between said village and the boundary line between the towns of Blackstone and Uxbridge, a distance slightly in excess of half a mile. The petitioners desire the elimination of the fare between the last named points.

The Commission is of the opinion that a single fare of five cents for the service rendered in the town of Blackstone is sufficient.

It is therefore

Ordered, That a fare of five cents be established as a just and reasonable fare to be charged by the Worcester Consolidated Street Railway Company for its service in the town of Blackstone.

It is further

Ordered, That the Worcester Consolidated Street Railway Company furnish special tickets in books or strips of seven for fifty cents, good between the hours of 5.30 A.M. and 7.30 A.M., and between the hours of 5.00 P.M. and 7.00 P.M., for the use of its regular patrons travelling from any part of Blackstone to any part of Uxbridge.

This order shall take effect and be in force on and after August 1, 1913.

JULY 22, 1913. Attest:
[P. S. C. 41]

CHARLES E. MANN,
Secretary.

Petition of the mayor of Chelsea for approval of operation of a special car by the Bay State street railway and the Boston Elevated railway companies.

After consideration, it appearing that the petitioner desires the approval by the Commission of the operation of a special car by the Bay State street railway and the Boston Elevated railway companies for the transportation of one hundred boys, to be selected by the supervisor of the Chelsea playgrounds, who are to attend the game upon the grounds of the Boston National Base Ball Club on Wednesday, July 23, 1913, by invitation of the president of said club, and that the provisions of section 18 of chapter 784 of the Acts of 1913 permit reduced rate service for such charitable purposes as may be approved by this Commission, — it is

Ordered, That the Commission approve the operation of this special car by said companies for the purpose named, upon the understanding that this action shall not be construed as furnishing a precedent for similar action in the future.

JULY 22, 1913. Attest:
[P. S. C. 39]

CHARLES E. MANN,
Secretary.

Petition of the Bay State Street Railway Company for permission to give free transportation for certain charitable purposes.

The petitioner requests authority, under the provisions of section 18 of chapter 784 of the Acts of 1913, to give free transportation in the form of free cars or free tickets to certain institutions and agencies specified in the schedule accompanying the petition, including eight hundred and fifty additional free tickets for emergency requests of a similar character during the present season.

After consideration, in view of the fact that railroad corporations have heretofore granted free transportation to such charitable organizations, and that such organizations have made their plans anticipating that no change will be made in that respect, — it is

Ordered, That the Commission approve the giving of the free transportation specified in said petition, and accompanying schedule, upon the understanding that this action shall not be construed as establishing a precedent for similar action in the future.

Attest: CHARLES E. MANN,
August 1, 1913. [P. S. C. 57] *Secretary.*

Similar orders were also issued authorizing the giving of free transportation for charitable purposes, as follows:

Bay State Street Railway Company.

August 25, 1913 — To poor children for transportation to and from the general exercises at the North Park, North Main street playgrounds in Fall River on August 27, 1913. [P. S. C. 102]

Blue Hill Street Railway Company.

September 12, 1913 — To district nurse associations of Canton and Stoughton; also to certain employees of other street railway companies. [P. S. C. 84]

Boston Elevated Railway Company.

August 1, 1913 — To inmates of various charitable and philanthropic institutions and agencies named in the schedule accompanying the petition. [P. S. C. 43]

Brockton and Plymouth Street Railway Company.

October 24, 1913 — To the district nurse associations of Whitman and Plymouth; also to certain employees of other street railway companies. [P. S. C. 175]

Connecticut Valley Street Railway Company.

December 22, 1913 — To the District Nurses' Association of Greenfield. [P. S. C. 270]

Middlesex and Boston Street Railway Company.

August 5, 1913 — To district nurses. [P. S. C. 29]

Northern Massachusetts Street Railway Company.

December 22, 1913 — To district nurses. [P. S. C. 269]

Union Street Railway Company.

August 13, 1913 — To the orphans from St. Anne Cathedral, Fall River, to Brooklawn Park, New Bedford, on August 15, 1913. [P. S. C. 78]

TELEPHONE AND TELEGRAPH SERVICE.

Petition of the Postal Telegraph-Cable Company relative to alleged discrimination by the New England Telephone and Telegraph Company in favor of the Western Union Telegraph Company.

R. H. OVERBAUGH, counsel for petitioner.

E. K. HALL for New England Telephone and Telegraph Company.

The petition in this case, filed September 4, 1913, alleges discrimination on the part of the telephone company, claiming that telephone calls intended for the Postal Telegraph Company are diverted to the Western Union Telegraph Company. A hearing was held on October 31st.

The evidence presented does not appear to be unlike the experience of the everyday user of telephone service, and there was no evidence presented which tended to show any intent to discriminate on the part of the defendant or any of its operators or other employees.

The evidence would seem to show that instructions as to the handling of telephone calls intended for either of the telegraph

companies appear to be ample and explicit, and care appears to be taken to make the operators thoroughly familiar with these instructions. That there are errors made is entirely probable, but such errors are apparently as likely to affect one telegraph company as the other. The evidence tended to show that the telegraph companies are experiencing less difficulty with their telephone service than other subscribers, by reason of the fact that the telephone lines of the telegraph companies are generally located in a special position upon the switchboard, and calls to telegraph companies are treated specially and not in all respects in regular routine.

The order which the petition requests the Commission to make has to do entirely with the routine and instructions on the part of the telephone company to its operators in handling calls for telegraph companies and to listing of telegraph companies in the telephone directory.

If an order were issued by the Commission to abolish call words for telegraph companies and substitute numbers, it would mean that a subscriber desiring to call either telegraph company would be compelled to look up the number in the directory and if a subscriber called by name of the company he would be refused connection until he had given the proper number. This would be distinctly against the general public interest and convenience, especially so in the state of Massachusetts where the public has enjoyed the privilege of calling by name for very many years. This privilege should not be taken away from the public without very strong grounds for doing so, and there is no evidence in this case which warrants the serious consideration of any such action.

The evidence would seem to show that the telephone company has in apparent good faith for more than a year past endeavored not to permit any discrimination as between the two telegraph companies.

So long as the company continues to use all reasonable endeavors to maintain its present procedure and enforces its existing instructions, presented in evidence, no action by the Commission seems to be required. Accordingly the petition is dismissed.

For the Commission,

ANDREW A. HIGHLANDS,

DECEMBER 23, 1913.

[P. S. C. 130]

Secretary.

BRIDGES, RAILROAD AND RAILWAY.

RAILROAD.

Report of the board of railroad commissioners on a resolve of the general court relative to the construction of a new bridge over the railroad tracks at Medway street in Boston.

To the Honorable the Senate and the House of Representatives in General Court Assembled:

Chapter 53 of the resolves of 1912, providing for an investigation and report by the board of railroad commissioners as to the construction of a new bridge over the railroad tracks at Medway street in the city of Boston, reads as follows:

Resolved, That the board of railroad commissioners shall investigate and report to the next general court on or before the fifteenth day of January, whether, in its judgment, public safety and convenience require the construction of a new bridge over the tracks of the New York, New Haven and Hartford railroad on Medway street, in the Dorchester district of the city of Boston.

The board of railroad commissioners has given a public hearing upon the foregoing resolve, has caused an examination of the bridge referred to to be made by Professor George F. Swain, consulting engineer of the Board, and, after consideration of the subject matter of the said resolve, submits its report.

The only right of way across the tracks of the New York, New Haven and Hartford railroad at this point is by virtue of a decree of the county commissioners in the year 1848, under which a sum of money was awarded for the taking, by the Dorchester and Milton Railroad Company, which then operated this line of railroad, of certain land held by one Thomas T. Baker, in trust for the use of Daniel Thomas Vose. Under the terms of the said decree the railroad was ordered by the court "to construct and forever main-

tain a substantial bridge, crossing over their railroad from one part to the other of the remaining parcels of land, such bridge to be in place of the old cart and carriage way over such land, to be constructed of sufficient width and strength for all loaded teams and vehicles, and with substantial side rails."

Medway street has not been laid out as a public way by the city of Boston across the location of the New York, New Haven and Hartford Railroad Company. It appears, therefore, that the bridge at Medway street, which spans the tracks of the New York, New Haven and Hartford Railroad Company, is not a public highway, but a private crossing appurtenant to the Baker estate.

While Medway street has been laid out as a public way only up to the railroad location on the north, the private crossing by means of a bridge across the tracks of the railroad company affords the only means of access from the city streets to a group of thirty or forty houses on the south side of the railroad location and situated on Bearse, Vose and Branch streets and Crest avenue, all of those streets being private ways. This group of houses is supplied with water from the city system by means of a ten-inch water main, which passes over and is supported by the bridge. The railroad company has acquiesced in the use of this bridge by fire engines and other vehicles, as well as for pedestrian travel.

The present bridge consists of six wooden stringers about two feet ten inches apart on centers, with a single layer of three-inch planking laid crosswise over the stringers. There is a wooden railing on each side, and on one side, inside the railing, is the wooden box carrying the city water main. The width of the bridge inside the railings is about fourteen and one-half feet, but owing to the presence of the water main the roadway is little more than eleven feet wide, so that two vehicles cannot pass on the bridge.

The bridge and abutments are in fairly good condition. The planking is light for the heaviest fire engines, but should carry them safely, unless further worn. The planking, which consists of one layer only, is, however, considerably worn, and within a comparatively short time is likely to prove unsuitable for heavy loads. The stringers are also light in weight, but provided with thicker planking, or with two layers of planking, should prove sufficient for the loads which the bridge would probably have to carry. The bridge can, therefore, be made suitable, so far as strength and safety are concerned, by better planking.

Being entirely of wood, the bridge is, of course, subject to the hazard of fire, and if it should be burned, the water supply, as well

as access to the houses on the south side of the railroad tracks, would be cut off.

Under the terms of the decree of the county commissioners already referred to, the railroad company is under the obligation of maintaining, in a proper state of repair, a bridge suitable for the uses prescribed in the decree. The present structure, if repaired in the manner indicated, would seem to satisfy the requirements of the decree, as well as considerations of public safety. It is apparent, however, that the construction of a new bridge of non-combustible material, and of greater width and strength than the present structure, and a reduction of the present grades in the approaches to the bridge, would furnish more convenient access from the city to the community on the south side of the railroad location, and would relieve the residents of that community from the hazard of losing the only means of connection with the rest of the city through the burning of the bridge.

If, in view of these conditions, a new bridge seems desirable, there is only one method prescribed in the statutes by which this result can be brought about. The City of Boston may lay out Medway street as a public way across the location of the New York, New Haven and Hartford Railroad Company, under the provisions of sections 113 and 116 of part II of chapter 463 of the Acts of 1906. If, however, proceedings are taken under this statute, the entire cost of constructing and maintaining the new bridge would fall upon the city of Boston.

If such action should be taken by the city, thereby relieving the railroad company of the cost of maintaining the present bridge and of replacing it by a new bridge when the present structure is worn out, the company might reasonably volunteer to contribute a portion of the expense. If the city should deem it desirable to provide for the construction of a new bridge at this point, it seems to the Board that an effort might well be made to secure a division of the expense, through friendly adjustment between the city and the railroad company.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

JANUARY 15, 1913.

[R. R. C. 9107]

Commissioners.

Petition of the selectmen of Leominster relative to height of bridge on the Boston and Maine railroad over Main street in said town.

After notice and hearing and further consideration, the petitioner having so requested, — it is

Ordered, That the above petition be dismissed without prejudice.

OCTOBER 8, 1913. Attest: CHARLES E. MANN,
[P. S. C. 54] Secretary.

Petition of the city of Springfield, by its board of supervisors, for approval of plans of bridges and abutments carrying the tracks of the Boston and Albany, New York, New Haven and Hartford and Boston and Maine railroads, over certain streets in the city of Springfield, under the provisions of chapter 562 of the Acts of 1913.

After a public hearing, and investigation by the engineers of the Commission, it appears that the bridges carrying the railroad tracks over Water street and Dwight street in the city of Springfield and the abutments thereof, as shown in the plans and specifications filed with the petition, are of suitable design and construction. The foundations of the lines of columns in the bridge over Water street give a rather large pressure upon the soil. It is provided, however, in the specifications, that the design may be modified or piles used if the ground is not found to be sufficiently good. The specifications seem to cover this matter as far as can reasonably be done in advance of the construction. We would suggest, however, that this matter be kept in mind, and that the foundations be widened or the plan otherwise modified when the work is done if it should be found necessary. It is therefore

Ordered, That the bridges carrying the railroad tracks over Water street and Dwight street in the city of Springfield and the abutments thereof as shown in the plans and specifications filed with the petition be hereby approved.

DECEMBER 22, 1913. Attest: ANDREW A. HIGHLANDS,
[P. S. C. 195] Secretary.

EXEMPTION FROM BRIDGE GUARDS.

Petition of the Boston, Revere Beach and Lynn Railroad Company that it be exempted from the duty of erecting and maintaining bridge guards over its railroad.

After consideration, it appearing that the petitioner has bridges or other structures which cross the railroad above the track; that it runs no freight trains and has no freight cars; and there appearing to be no occasion for the erection and maintenance of bridge guards at any of its bridges or other structures which cross the railroad above the track, — it is

Ordered, That under the provisions of section 143 of part II of chapter 463 of the Acts of 1906, as amended by chapter 161 of the Acts of the year 1913, the Boston, Revere Beach and Lynn Railroad Company be exempted from erecting and maintaining bridge guards at bridges or other structures over its railroad, this order to be subject to modification or revocation in the discretion of the Board.

Attest: CHARLES E. MANN,
JUNE 30, 1913. [R. R. C. 9284] Clerk.

Orders were also issued exempting railroad companies from the duty of erecting and maintaining bridge guards at bridges or other structures that have a clear head-room of twenty-two (22) feet or more above the tracks of the railroad, as designated in schedules accompanying the petitions of the companies, as follows: —

Boston and Maine Railroad, September 12, 1913. [P. S. C. 128]

Central Vermont Railway Company, August 15, 1913 — On the New London Northern railroad. [P. S. C. 81]

New York Central and Hudson River Railroad Company, June 30, 1913 — On the Boston and Albany railroad. [R. R. C. 9289]

New York, New Haven and Hartford Railroad Company, June 30, 1913, August 25, 1913. [R. R. C. 9439]

APPROVAL OF STREET RAILWAY BRIDGE PLANS.

During the year ending December 31, 1913, on the recommendation of Professor George F. Swain, consulting engineer, plans submitted for street railway bridges have been approved, as follows:

Berkshire Street Railway.

Blandford, January 14, 1913 — Revised plan for reinforced concrete bridge at Waite Pond, at station 775 + 00.5. [R. R. C. 9155]

Holyoke Street Railway.

Amherst, December 13, 1913 — Plans for rebuilding bridge at Puffer's mill at North Amherst. [P. S. C. 264]

Milford, Attleborough and Woonsocket Street Railway.

Bellingham, January 14, 1913 — Plan for rebuilding bridge over Scott's cattle pass, three miles north of Woonsocket. [R. R. C. 9194]

New Bedford and Onset Street Railway.

Wareham, October 1, 1913 — Plans for rebuilding the Wareham Narrows bridge. [P. S. C. 106]

Templeton Street Railway.

Templeton, February 10, 1913 — Plan of bridge over the Boston and Maine railroad, at Baldwinville. [R. R. C. 8783]

Worcester Consolidated Street Railway.

Berlin, January 2, 1913 — Plan for rebuilding bridge over brook at West Berlin. [R. R. C. 9164]

Grafton, February 15, 1913 — Plan for strengthening bridge beside Main street over Blackstone river at Fisherville. [R. R. C. 9187]

Grafton, April 3, 1913 — Plans for bridge over Flint's pond; for strengthening bridge at Main street over Quinsigamond river. [R. R. C. 9234]

Grafton, August 25, 1913 — Plans for bridge beside Main street, over Quinsigamond river, at North Grafton. [P. S. C. 61]

Holden, January 28, 1913 — Plan for rebuilding bridge at Princeton street over Asnebumskit brook at Jefferson. [R. R. C. 9187]

Lancaster, January 2, 1913 — Plan for bridge over Wekepeke brook, two and one-half miles north of North Lancaster. [R. R. C. 9164]

Lancaster, January 28, 1913 — Plan for rebuilding Vose bridge, beside highway over north branch of Nashua river. [R. R. C. 9187]

Lancaster, April 3, 1913 — Plans for rebuilding Ponikin bridge, beside Lancaster avenue, over North branch of the Nashua river. [R. R. C. 9234]

Millbury, April 3, 1913 — Plans for rebuilding bridge over Millbury branch of the Boston and Albany railroad at Millbury Junction. [R. R. C. 9234]

Northborough, January 2, 1913 — Plan for rebuilding bridge at Milk street, over Assabet river, two miles south of Northborough. [R. R. C. 9164]

Northbridge, January 28, 1913 — Plan for strengthening bridge over Blackstone river at Rockdale. [R. R. C. 9187]

CAPITAL STOCK AND BONDS.

Petition of the Athol and Orange Street Railway Company for approval of an issue of common and preferred capital stock.

It appearing, after notice and hearing and further investigation, that the proposed issue of common and preferred capital stock is for a lawful purpose and is consistent with the public interest; and it further appearing from a vote of the board of directors of the Templeton Street Railway Company, an attested copy of which is filed with this Board, that certificates for seven hundred and four (704) shares, out of a total of seven hundred and fifty (750) shares heretofore lawfully issued and outstanding of the capital stock of said company, have been cancelled and returned to the treasurer of said company, and that said board of directors has directed that no part of the capital stock of said company be re-issued and has directed the proper officers of said company to take such steps as may be necessary and proper to effect the dissolution of said company in accordance with law, — it is

Ordered, That the approval of the Board be hereby given to the issue by the Athol and Orange Street Railway Company, at the price of one hundred dollars (\$100) per share as fixed by its stockholders, of not exceeding nine hundred and five (905) shares of common stock, amounting at par value to ninety thousand five hundred dollars (\$90,500), and not exceeding fifteen hundred (1,500) shares of six per cent. (6%) cumulative preferred stock, amounting at par value to one hundred fifty thousand dollars (\$150,000), which preferred stock shall have the preferences, voting powers, restrictions and qualifications which have been fixed by two-thirds vote of all the stock of said company, as set out in copies of said votes annexed to the petition of the company dated March 10, 1913, as an issue of stock reasonably necessary and of the amount required for the purpose of providing for the payment of a part of the indebtedness incurred in the purchase by said company of the franchise and property of the Templeton Street Railway Company.

Any excess in the proceeds of these shares over the amount to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
MARCH 26, 1913. [R. R. C. 9270] Clerk.

*Petition of the Automatic Telephone Company of New Bedford
for approval of an issue of bonds.*

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Commission be hereby given to the issue by the Automatic Telephone Company of New Bedford of coupon or registered bonds to an amount not exceeding at par value forty thousand dollars (\$40,000), payable twenty years from date thereof and bearing interest at the rate of five per cent. (5%) per annum, as an issue of bonds reasonably necessary and of the amount required for the payment of floating indebtedness properly incurred in the construction and equipment of its plant, and in the purchase of property necessary for its operation, as described in a schedule on file with the petition.

Any excess in the proceeds of these bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Commission shall hereafter approve.

Attest: ANDREW A. HIGHLANDS,
NOVEMBER 26, 1913. [P. S. C. 157] Secretary.

*Petition of the Bay State Street Railway Company for approval of
an issue of preferred capital stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of preferred stock is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the issue by the Bay State Street Railway Company, at the price of one hundred fifteen dollars (\$115) per share, as fixed by its stock-

holders, of not exceeding six thousand six hundred (6,600) shares of six per cent (6%) cumulative preferred capital stock, amounting at par value to six hundred sixty thousand dollars (\$660,000), having the preferences, voting powers and restrictions and qualifications thereof which have been fixed by two-thirds votes of all the stock of said company as set out in copies of said votes referred to in and annexed to the petition of the company dated January 15, 1913, as an issue of stock reasonably necessary and of the amount required for the purpose of paying certain floating indebtedness properly incurred in the construction and equipment of the railway and in the purchase of property necessary for its operation, as shown in schedules on file with the petition.

Any excess in the proceeds of these shares over the amount to be applied as above stated shall be held for such application to the cost of permanent additions to and improvements in the property of the company as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
MARCH 5, 1913. [R. R. C. 9207] Clerk.

Petition of the Bay State Street Railway Company for approval of issues of bonds.

It appearing, after notice and hearing and further investigation, that the proposed issues of bonds are for lawful purposes and are consistent with the public interest, — it is

Ordered, That the approval of the Board, under the authority of chapter 323, Acts of 1911, be hereby given to the issue by the Bay State Street Railway Company (formerly the Boston and Northern Street Railway Company) of coupon or registered bonds of the Boston and Northern Street Railway Company secured by the mortgage executed by said company to the Adams Trust Company (now the American Trust Company) under date of July 1, 1904, to an amount not exceeding at par value two hundred sixty-six thousand dollars (\$266,000), payable in fifty years from the date thereof and bearing interest at the rate of four per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the purpose of paying certain floating indebtedness properly incurred for the purposes described or referred to in the petition; and the Bay State Street Railway Company is hereby required, except as this requirement may hereafter be modified by

the Board, to establish a sinking fund, with the American Trust Company of Boston as trustee and custodian of such fund, and to pay into said fund, by equal semi-annual payments on June 30 and December 31, the sum of three thousand three hundred dollars (\$3,300) in each year, until the maturity of said bonds, and to make the first of such semi-annual payments on June 30 next.

And it is further

Ordered, That the approval of the Board, under the authority of chapter 323, Acts of 1911, be hereby given to the issue by the Bay State Street Railway Company (successor to the Old Colony Street Railway Company) of coupon or registered bonds of the Old Colony Street Railway Company secured by the mortgage executed by said company to the Old Colony Trust Company under date of July 1, 1904, to an amount not exceeding at par value one hundred sixty-three thousand dollars (\$163,000), payable in fifty years from the date thereof and bearing interest at the rate of four per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the purposes described or referred to in the petition; and the Bay State Street Railway Company is hereby required, except as this requirement may hereafter be modified by the Board, to establish a sinking fund, with the Old Colony Trust Company of Boston as trustee and custodian of such fund, and to pay into said fund, by equal semi-annual payments on June 30 and December 31, the sum of two thousand dollars (\$2,000) in each year, until the maturity of said bonds, and to make the first of such semi-annual payments on June 30 next.

Attest:

CHARLES E. MANN,

APRIL 2, 1913.

[R. R. C. 9278]

Clerk.

Approval of agreement between the Bay State Street Railway Company and the American Trust Company as trustee, relative to the establishment of a sinking fund.

It appearing that, under the provisions of chapter 536 of the Acts of 1910, the Bay State Street Railway Company has entered into an agreement with the American Trust Company, of Boston, dated April 8, 1913, whereby it has established a sinking fund for two hundred sixty-six thousand dollars (\$266,000), being the face amount of certain bonds approved by the Board April 2, 1913,—it is

Ordered, That the approval of the Board be hereby given to the provisions of the above agreement, a copy of which is on file in this office, and that the American Trust Company, of Boston, be hereby approved as trustee of said sinking fund.

Attest: CHARLES E. MANN,
APRIL 11, 1913. [R. R. C. 9296] Clerk.

Approval of agreement between the Bay State Street Railway Company and the Old Colony Trust Company as trustee, relative to the establishment of a sinking fund.

It appearing that, under the provisions of chapter 536 of the Acts of 1910, the Bay State Street Railway Company has entered into an agreement with the Old Colony Trust Company, of Boston, dated April 8, 1913, whereby it has established a sinking fund for one hundred sixty-three thousand dollars (\$163,000), being the face amount of certain bonds approved by the Board April 2, 1913, — it is

Ordered, That the approval of the Board be hereby given to the provisions of the above agreement, a copy of which is on file in this office, and that the Old Colony Trust Company, of Boston, be hereby approved as trustee of said sinking fund.

Attest: CHARLES E. MANN,
APRIL 11, 1913. [R. R. C. 9296] Clerk.

Petition of the Berkshire Street Railway Company for approval of an issue of additional capital stock.

It appearing, after notice and hearing and further investigation, that the issue of capital stock proposed is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the issue by the Berkshire Street Railway Company, at the price of one hundred dollars per share, as fixed by its stockholders, of additional shares of capital stock not exceeding ten thousand (10,000) in number, amounting at par value to one million dollars (\$1,000,000), the proceeds of said shares to be applied only toward the payment of the necessary cost of building the Becket extension (formerly called the East Lee extension) of the Berkshire street

railway, and to be used in connection with the proceeds received from the sale of three thousand (3,000) shares of capital stock, amounting to three hundred thousand dollars (\$300,000), issued under order of the Board dated January 12, 1912.

Any excess in the proceeds of these shares over the amount to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
MARCH 28, 1913. [R. R. C. 8485] Clerk.

*Petition of the Boston, Revere Beach and Lynn Railroad Company
for approval of an issue of bonds.*

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Commission be hereby given to the issue by the Boston, Revere Beach and Lynn Railroad Company of coupon or registered bonds to an amount not exceeding at par value one hundred fifty thousand dollars (\$150,000), payable July 15, 1927, and bearing interest at the rate of four and one-half ($4\frac{1}{2}$) per cent per annum, as an issue of bonds reasonably necessary for the purpose of paying in part certain floating indebtedness properly incurred in double tracking the Winthrop branch, so called, of said Boston, Revere Beach and Lynn Railroad Company, as shown on a schedule filed with the above petition.

Any excess in the proceeds of this issue of bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Commission shall hereafter approve.

Attest: CHARLES E. MANN,
JULY 11, 1913. [P. S. C. 13] Secretary.

*Petition of the Boston, Revere Beach and Lynn Railroad Company
for approval of an issue of additional capital stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of capital stock is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Commission be hereby given to the issue by the Boston, Revere Beach and Lynn Railroad Company, at the price of one hundred dollars (\$100) per share, as fixed by its stockholders, of additional shares of capital stock not exceeding one thousand seven hundred (1,700) in number, amounting at par value to one hundred seventy thousand dollars (\$170,000), the proceeds of said issue to be applied exclusively to the payment of floating indebtedness properly incurred for lawful purposes, as shown in last amended schedule on file with the petition.

Any excess in the proceeds of these shares over the amount to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Commission shall hereafter approve.

Inasmuch as certain items in the last amended schedule above referred to represent lap-overs from previous appraisals made in behalf of this Commission and its predecessor, the board of railroad commissioners, it is understood and agreed that this petition and the above finding thereon covers all that property of the petitioner for which floating indebtedness has been incurred which can be subject to capitalization at this time and which has not heretofore been capitalized either in the form of stock or bonds (with the exception of such amounts as have been and are to be expended for the elimination of grade crossings now in progress); and that any excess property over and above the amount herein capitalized in manner as aforesaid shall not apply to or upon any subsequent application by said company for additional capitalization.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 237] *Secretary.*

Petition of the Boston and Albany Railroad Company for approval of an issue of bonds.

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the issue by the Boston and Albany Railroad Company of coupon or registered bonds to an amount not exceeding at par value three million six hundred twenty-seven thousand dollars (\$3,627,000),

said bonds to bear date of October 1, 1913, to be payable in fifty years from date thereof, to bear interest at a rate not to exceed five per cent (5%) per annum, and to be sold to net not less than par, as an issue of bonds reasonably necessary and of the amount required for the purpose of refunding outstanding bonds of the petitioner, amounting to three million six hundred twenty-seven thousand dollars (\$3,627,000), which become due October 1, 1913.

Any excess in the proceeds of this issue of bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
APRIL 12, 1913. [R. R. C. 9283] Clerk.

*Petition of the Boston and Albany Railroad Company for approval
of an issue of bonds.*

It appearing, after notice and a hearing and further investigation, that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to an issue by the Boston and Albany Railroad Company of coupon or registered bonds to an amount not exceeding at par value two million fifteen thousand dollars (\$2,015,000), said bonds to bear date of July 1, 1913; to be payable in twenty-five years from said date; to be sold to net not less than par; and to bear interest at a rate not exceeding five per cent per annum; as an issue of bonds reasonably necessary and of the amount required for paying the necessary cost of permanent additions to and improvements upon the railroad property of the petitioner, made or to be made by The New York Central and Hudson River Railroad Company in accordance with the provisions of the lease between said companies and described in the schedule on file with the petition. Said railroad company shall within a reasonable time after the end of each year report to the Board the amounts expended from the proceeds of such issue for each of the purposes above stated.

Any excess in the proceeds of this issue of bonds which shall not be needed for the purposes above stated, including such sums as may be realized from premiums, shall be applied to the payment of any excess of the cost of the proposed improvements above the esti-

mated cost, or shall be held for such application to the cost of permanent additions to and improvements upon the property of the company as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
JUNE 12, 1913. [R. R. C. 9394] Clerk.

In the matter of the petition of the Boston and Albany Railroad Company for approval of bond issue of 1908.

It appearing, after notice and a hearing upon the supplemental petition of said railroad company, filed in this case March 7, 1913, and after further investigation, that the New York Central and Hudson River Railroad Company has not found it necessary to expend the full amount for certain of the purposes authorized by the order of the Board in the above entitled matter dated May 27, 1908, and that there remains unapplied from the proceeds of said bond issue the amount of twenty-nine thousand sixty-one dollars and seventy-five cents (\$29,061.75), — it is

Ordered, That the approval of the Board be hereby given to the application of the proceeds of said bond issue to the amount of twenty-nine thousand sixty-one dollars and seventy-five cents (\$29,061.75) to expenditures already made for the abolition of grade crossings at East Boston, covered by item No. 32 on the schedule attached to said supplemental petition, so that the expenditure approved out of the proceeds of said bond issue for said purposes may be one hundred seventy-four thousand eight hundred fourteen dollars and twenty cents (\$174,814.20) instead of one hundred forty-five thousand seven hundred fifty-two dollars and forty-five cents (\$145,752.45) as originally authorized.

Attest: CHARLES E. MANN,
JUNE 23, 1913. [R. R. C. 6960] Clerk.

In the matter of the petition of the Boston and Albany Railroad Company for approval of bond issue of 1909.

It appearing, after notice and a hearing, upon the supplemental petition of said railroad company, filed in this case March 7, 1913, as amended by the motion filed therein June 4, 1913, and after

further investigation, that the New York Central and Hudson River Railroad Company has expended for miscellaneous improvements on the Boston and Albany railroad, subject to the approval of the Board, as shown by item No. 46 of schedule "A" attached to said supplemental petition, the details of which are shown by schedule "B" attached to said petition, the amount of two hundred sixty-nine thousand two hundred ninety-four dollars and forty-six cents (\$269,294.46); that there was on January 1, 1913, unexpended from the proceeds of said bond issue the sum of three hundred twenty-seven thousand four hundred twenty-nine dollars and ninety cents (\$327,429.90); and that the New York Central and Hudson River Railroad Company has expended for permanent additions to and improvements upon the Boston and Albany railroad the sum of three hundred twenty-two thousand ninety-four dollars and seventy cents (\$322,094.70), as shown by schedule "C" attached to said supplemental petition, — it is

Ordered, That said miscellaneous permanent improvements covered by item No. 46 of said schedule "A", and stated in detail in said schedule "B", be hereby approved; that the approval of the Board be hereby given to the application of the proceeds of said bond issue to the amount of three hundred twenty-two thousand ninety-four dollars and seventy cents (\$322,094.70) to expenditures already made for such permanent additions and improvements, as shown by schedule "C" attached to said supplemental petition, leaving the sum of four hundred dollars (\$400) to be expended to complete the betterments provided for under item No. 16 of said schedule "A", and the further sum of four thousand nine hundred thirty-five dollars and twenty cents (\$4,935.20) to be applied hereafter to permanent additions and improvements to be approved by the Board.

Attest: CHARLES E. MANN,
JUNE 23, 1913. [R. R. C. 7332] Clerk.

In the matter of the petition of the Boston and Albany Railroad Company for approval of bond issue of 1910.

It appearing, after notice and a hearing, upon the supplemental petition of said railroad company, filed in this case March 7, 1913, and after further investigation, that the New York Central and Hudson River Railroad Company has not found it necessary to expend the full amount for the purposes authorized by the order of

the Board in the above entitled matter dated May 11, 1910, and that there remains unexpended from the proceeds of said bond issue the amount of \$184,892.68, of which sum \$39,431.17 will probably be necessary to cover further expenditures for the purposes formerly authorized; and that the said railroad company has made permanent additions to and improvements upon the Boston and Albany railroad, amounting to \$145,461.51, as shown by schedule "B" attached to said supplemental petition,— it is

Ordered, That the approval of the Board be hereby given to the application of the proceeds of said bond issue to the amount of \$145,461.51, to expenditures already made for permanent additions to and improvements upon the Boston and Albany railroad as shown in schedule "B" attached to said supplemental petition, to the amount of \$145,461.51.

Attest: CHARLES E. MANN,
JUNE 23, 1913. [R. R. C. 7739] *Clerk.*

Petition of the Boston and Lowell Railroad Corporation for approval of an issue of bonds.

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest,— it is

Ordered, That the approval of the Board be hereby given to the issue by the Boston and Lowell Railroad Corporation of coupon or registered bonds to an amount not exceeding at par value one million dollars (\$1,000,000), payable twenty years from date thereof and bearing interest at a rate not to exceed four and one-half per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the payment and refunding of bonds of the petitioner amounting to one million dollars (\$1,000,000), which become due February 1, 1913.

Any excess in the proceeds of this issue of bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
JANUARY 15, 1913. [R. R. C. 9198] *Clerk.*

Petition of the Boston and Maine Railroad for approval of an issue of additional common stock.

EDGAR J. RICH for Boston and Maine Railroad.

This is a petition for approval of additional common stock to the amount of one hundred six thousand six hundred thirty-seven shares, which the petitioner desires to issue at par, for the purpose of providing means for the payment of money borrowed for the purchase of the capital stock of the Worcester, Nashua and Rochester Railroad Company, the Maine Central Railroad Company, the Boston and Lowell Railroad Corporation and the Concord and Montreal Railroad, acquired under the provisions of chapter 194 of the Acts of 1898.

We find that the number of shares purchased of the stock of each of the said railroad corporations and the amounts expended therefor, together with the dates of purchase, are as follows:

	Shares.	Amounts.
Worcester, Nashua and Rochester Railroad Company, February, 1910, to June, 1912, .	30,984	\$4,770,098 95
Maine Central Railroad Company, October 1, 1911, to October 1, 1912,	50,449	5,047,996 00
Boston and Lowell Railroad Corporation, August, 1911,	2,800	617,448 41
Concord and Montreal Railroad, April, 1912,	3,335	533,600 00
Total, ...		\$10,969,143 36

In February, 1910, sixteen thousand nine hundred forty-four shares, representing a controlling interest of the stock of the Worcester, Nashua and Rochester Railroad Company, were purchased by the Boston and Maine Railroad at \$160.25 per share. By an order of the Board, dated March 22, 1910, the approval of the Board was given to the purchase and holding by the Boston and Maine Railroad of the capital stock, or at least a majority thereof, of the Worcester, Nashua and Rochester Railroad Company. At the time this order was issued the Board was advised of the purchase price paid by the Boston and Maine Railroad for the controlling interest in the stock of the Worcester, Nashua and Rochester Railroad Company. Although this price was slightly in excess of the market quotations for small amounts of this stock, the Board informally approved the same, in view of an appraisal of the property of the

Worcester, Nashua and Rochester Railroad Company made on behalf of the Board by Mr. G. M. Thompson, civil engineer. Subsequent purchases of the stock of the Worcester, Nashua and Rochester Railroad Company by the Boston and Maine Railroad reduced the average price paid for all the stock in that company purchased by the Boston and Maine Railroad to \$153.95 per share.

By another order of the Board, dated April 17, 1911, the approval of the Board was given to the purchase and holding by the Boston and Maine Railroad of the capital stock, or at least a majority of the capital stock, of certain railroad corporations, including the Maine Central Railroad Company, the Boston and Lowell Railroad Corporation and the Concord and Montreal Railroad.

Of the fifty thousand four hundred forty-nine shares of stock of the Maine Central Railroad Company purchased by the Boston and Maine Railroad, fifty thousand three hundred sixty-three shares were subscribed for at \$100.00 per share, and eighty-six shares (held in the treasury of the Maine Central Railroad Company) were purchased in 1911 at \$136.00 per share, making the average cost of the fifty thousand four hundred forty-nine shares of the Maine Central Railroad Company \$100.06 per share. The market quotations on Maine Central Railroad stock in July and August, 1911, were from \$140.00 to \$145.00 per share.

The two thousand eight hundred shares of stock of the Boston and Lowell Railroad Corporation were purchased at auction at an average price of \$220.51 per share.

Under the vote of the stockholders and directors of the Concord and Montreal Railroad Company authorizing the issue of four thousand shares Class 4 stock, the stockholders subscribed and paid for two hundred and fifty-seven shares at \$160 per share. After the date when the right to subscribe expired, four hundred eight shares were sold and paid for at the same price, making a total of six hundred sixty-five shares, and leaving a balance in the treasury of three thousand three hundred thirty-five shares, which were sold at auction for \$160 per share and purchased by the Boston and Maine Railroad.

It thus appears that the stock of all of the said corporations, with the exception of the Maine Central Railroad Company, was purchased at a price considerably above par. If the amount of this purchase price is to be provided by the issue of stock of the Boston and Maine Railroad at par, the result will be to increase largely the aggregate outstanding capitalization of the Boston and Maine railroad system. If the various leased railroad companies attempted

to capitalize the premium value of their own capital stock, it would be clearly at variance with the general policy of the commonwealth. The fact that the increased capitalization is made through the medium of Boston and Maine stock does not change its essential character so far as the public is concerned.

It is to be borne in mind also that this transaction goes farther than the capitalization of premiums on the stock, based upon the earning capacity, of these leased lines. Whatever amount of capital may have been put into these properties, and whatever their physical values may be at the present time, the market value of their stock does not reflect these values, or the present earning capacity of these lines, but is fixed almost solely on the basis of the rentals paid by the Boston and Maine Railroad. The higher these rentals are the higher will be the market value of the stock of the leased lines, no matter what may be the net financial result of their operations.

As the market price of the shares of stock of these subsidiary lines is not determined by their earning capacity or intrinsic values, it has been exceedingly difficult for the Board to apply any satisfactory standard for determining the proper ratio of exchange between the stock of the Boston and Maine Railroad and that of the subsidiary lines. A careful physical valuation of the property of these lines, and an investigation of the aggregate amounts of capital contributed by their stockholders, would necessitate a long and unwarranted delay, and would not be conclusive in regard to the questions of policy involved.

Attention should also be called to an important phase of this case. If an excessive rental is being paid by the Boston and Maine Railroad for any of its leased lines, the burden rests, as it should, upon the stockholders of the Boston and Maine Railroad; but if the artificial value thus given to the stock of any such leased line is to be capitalized, that burden is transferred to the public. The rentals heretofore paid to the Worcester, Nashua and Rochester Railroad Company, the Boston and Lowell Railroad Corporation and the Concord and Montreal Railroad are equivalent to about three and three-quarters per cent upon the purchase price paid for their stock. If this purchase price should be provided by the issue of stock of the Boston and Maine Railroad at par, the public, in any cases affecting the adjudication of rates, would be asked to pay sufficient rates to permit dividends of at least six per cent, instead of three and three-quarters per cent, as heretofore, upon this amount.

In the original act, chapter 308 of the Acts of 1891, giving the Boston and Maine Railroad authority to purchase the road, fran-

chises and property of any railroad corporation whose road is operated by it under lease, contract, or through ownership of stock, it was specified that the Boston and Maine Railroad, for the purpose of making any such purchase, might increase its capital stock by an amount not exceeding the amount of the capital stock of the selling corporation. In a later act, chapter 194 of the Acts of 1898, the Boston and Maine Railroad was given the general authority, subject to the approval of the board of railroad commissioners, to purchase the shares of the capital stock of any such railroad corporation and, in order to provide the means for such purchase, to issue its own shares "subject to the approval of the board of railroad commissioners as to the amount and to the provisions of all general laws relating to the issue and disposal of new shares of stock of railroad corporations."

As the avowed purpose of this legislation was to enable the Boston and Maine Railroad to purchase the stock of the Boston and Lowell Railroad Corporation, as well as the stock of other lines then selling at a higher price than the stock of the Boston and Maine, it was clearly the intent of the legislature to repeal the limitation in the act of 1891, and to authorize the issue of stock of the Boston and Maine Railroad in excess of the amount of stock of the selling corporation. The responsibility of determining how far this policy should be carried was, however, left with the board of railroad commissioners.

Moreover, at the time this act was passed, the market quotations for the stock of the Boston and Maine Railroad were about \$165.00 a share. In other words, at that time four shares of stock of the Boston and Maine Railroad would provide for the purchase of three shares of stock of the Boston and Lowell Railroad Corporation. It is not clear that the legislature anticipated that the price of the stock of the Boston and Maine Railroad would fall so low as to require the issue of eleven shares of that stock in order to purchase five shares of stock of the Boston and Lowell Railroad Corporation.

On the other hand, the Board recognizes that the elimination of fixed charges due to rentals of leased lines, and a more equal distribution of dividends among all the stockholders of the Boston and Maine system is, within proper limitations, in the interest of the public. The Board has also in mind that any increase of capitalization for the purchases now under consideration would be more than offset by the decrease of capitalization due to purchases of the stock of other leased lines heretofore made at a price much below par. Moreover, while the approval heretofore given by the Board for the purchase of the stock of these leased lines does not imply that the

entire amount of the expenditures for such purpose are properly subject to capitalization, the company, in the absence of any declared policy by the Board, might have been justified in assuming that the Board would authorize an issue of capital stock of the Boston and Maine Railroad sufficient to meet the expenditures so incurred with the approval of the Board.

As the result of careful investigation and consideration of all the important questions of policy involved in the present case, the Board is prepared to approve the issue by the Boston and Maine Railroad of one hundred six thousand six hundred thirty-seven shares of stock as prayed for in the petition. In so doing, however, the Board desires it to be distinctly understood that this action is not to be regarded as establishing a precedent in relation to similar purchases of stock hereafter made and that the Board reserves the right to take such action in relation thereto as may seem to the Board, in view of all the circumstances of each case, to be just and proper.

It is therefore

Ordered, That the approval of the Board be hereby given to the issue by the Boston and Maine Railroad, at the price of one hundred dollars (\$100) per share, as fixed by its stockholders, of additional shares of common stock not exceeding one hundred six thousand six hundred thirty-seven (106,637) in number, amounting at par value to ten million six hundred sixty-three thousand seven hundred dollars (\$10,663,700), as an issue of stock reasonably necessary and of the amount required for the purpose of providing means to be applied towards the payment of money borrowed for the purchase of the capital stock of the Worcester, Nashua and Rochester Railroad Company, the Maine Central Railroad Company, the Boston and Lowell Railroad Corporation and the Concord and Montreal Railroad, acquired under the provisions of chapter 194 of the Acts of Massachusetts of 1898, as shown in the schedule filed with the petition.

This order is made on the understanding that it does not constitute a finding as to the value of any railroad properties which can in any way affect the action of the Board in any case concerning rates upon the Boston and Maine Railroad, or in any other matter that may arise in the future wherein the value of the property of any of the railroad companies named in this petition may be material.

By the Board,

CHARLES E. MANN,

FEBRUARY 7, 1913.

[R. R. C. 9083]

Clerk.

Petition of the Boston and Maine Railroad for approval of an issue of bonds.

It appearing, after notice and hearing and upon further investigation, that the proposed issue of bonds is for lawful purposes and is consistent with the public interests, — it is

Ordered, That the approval of the Board be hereby given to the issue by the Boston and Maine Railroad of coupon or registered bonds to an amount not exceeding at par value seven million five hundred thousand dollars (\$7,500,000); payable twenty (20) years from date thereof and bearing interest at a rate not exceeding four and one-half cent per annum, as an issue of bonds reasonably necessary and of the amount required for the purposes hereinafter named:

The proceeds of bonds amounting at par value to five hundred eleven thousand dollars (\$511,000) shall be applied only to the refunding of five hundred eleven thousand dollars (\$511,000) first mortgage bonds of the Worcester, Nashua and Rochester Railroad Company maturing January 1, 1913, and assumed by the Boston and Maine Railroad.

The proceeds of bonds amounting at par value to six million nine hundred eighty-nine thousand dollars (\$6,989,000) shall be applied only to the funding of certain floating indebtedness properly incurred for equipment and for permanent additions to and improvements in the property of the company and for amounts required to complete work now in process and for new equipment, less the amount credited for property sold and abandoned, all as shown upon a schedule on file with the petition.

Any excess in the proceeds of this issue of bonds which may be realized from premiums shall be held for such application to the cost of permanent additions to and improvements in the property of the company as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
FEBRUARY 7, 1913. [R. R. C. 9084] Clerk.

Petition of the Boston and Worcester Street Railway Company for approval of an issue of bonds.

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for lawful purposes and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the issue by the Boston and Worcester Street Railway Company of coupon or registered bonds to an amount not exceeding at par value one hundred forty thousand dollars (\$140,000), payable twenty years from date thereof and bearing interest at the rate of four and one-half per cent ($4\frac{1}{2}\%$) per annum, as an issue of bonds reasonably necessary and of the amount required for the following purposes :

1. The proceeds of bonds amounting at par value to one hundred thirty thousand dollars (\$130,000) shall be applied exclusively to the payment of floating indebtedness properly incurred in making permanent additions to and improvements in the railway property, as described in the schedule on file with the petition.

2. The proceeds of bonds amounting at par value to ten thousand dollars (\$10,000) shall be applied exclusively to the payment of the necessary cost to be incurred in the purchase of four freight cars and equipment for same, as described in the schedule on file with the petition.

Any excess in the proceeds of these bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
MAY 15, 1913. [R. R. C. 9286] Clerk.

Petition of the Hampden Railroad Corporation for approval of an issue of bonds.

H. W. ELY, counsel for petitioner.

RALPH D. GILLET, president, Hampden Railroad Corporation.

H. S. DURKEE, chief engineer, Hampden Railroad Corporation.

EDGAR J. RICH, counsel for Boston and Maine Railroad.

A. B. CORTHELL, chief engineer, Boston and Maine Railroad.

FRANKLIN T. HAMMOND, counsel for Public Service Commission.

This is an application of the Hampden Railroad Corporation asking the approval of the Commission of a proposed issue of bonds to the amount of \$2,500,000, dated February 1, 1913, payable thirty years from the date thereof, and bearing interest at the rate of five per cent per annum, for the purpose of funding its floating debt incurred in the construction and equipment of its railroad.

The proposed bonds are to be secured by a mortgage of the rail-

road, its equipment, franchises and all other property now owned by it or hereafter acquired.

In June, 1913, when the petition came on for hearing, the company filed a statement showing alleged gross expenditures up to that time in the construction of its railroad to the amount of \$4,145,685.04. Additional expenditures made since that date for completing the road, including interest charges, represent an additional amount of about \$250,000. This would bring the gross cost of the completed railroad, as alleged by the company, up to about \$4,400,000.

The amount of the outstanding capital stock previously authorized is \$1,400,000. This amount, together with the amount of bonds now proposed to be issued by the company, would represent a total capitalization of \$3,900,000. It would appear, therefore, that if the figures presented by the company should be found to represent the amount of expenditures lawfully and properly incurred for the construction of its railroad the company might hereafter petition the Commission for an additional issue of stock or stock and bonds to the amount of \$500,000.

This railroad is a single track road 14.85 miles long, running for most of the way nearly parallel to the Athol branch of the Boston and Albany railroad from Bondsville, where it connects with the Massachusetts Central branch of the Boston and Maine railroad, to Athol Junction where it connects with the tracks of the Boston and Albany railroad about two miles from Springfield station. It has four small stations, two of them combination freight and passenger stations. The single fact that such a road, with no terminals and no rolling stock, is alleged to have cost about \$290,000 a mile is enough to put the Commission on strict and careful inquiry as to the history of the enterprise and the methods pursued in its construction.

It appears also that, with the exception of interest charges and certain other expenditures to the amount of about \$125,000 directly made by the Hampden Railroad Corporation, the figures filed by the petitioner purporting to show the actual cost of the road represent payments made to the Woronoco Construction Company under a contract between that company and the Hampden railroad, by the terms of which a portion of the work was to be paid for at specified unit prices, and the balance on the basis of cost plus ten per cent. As the Woronoco Construction Company was simply a trade name under which a general contracting business largely in railroad and street railway construction was conducted by the president of the

Hampden Railroad Corporation, it is obvious that a contract of this character between the Hampden Railroad Corporation and its president, in his capacity as contractor, could not on its face be accepted as a basis for computing the proper cost of the road.

It was urged, however, that any unfavorable inference that might be drawn from this transaction is excluded by the fact that the Hampden Railroad Corporation was acting only as an agent or intermediary for the Boston and Maine Railroad.

As the question of the bona fides of this contract is an important factor in the decision of this case, it seems desirable that we should state in some detail the various transactions which may tend to throw light upon the inter-relations of the two railroad companies.

The inception of the idea of the extension of the Central Massachusetts railroad to Springfield is almost as old as the construction of that railroad itself. In 1890 and 1891 several surveys were made for the purpose of determining the most practicable route for connecting the Massachusetts Central railroad with Chicopee, Holyoke and Springfield. Plans made at that time are in the files of the Boston and Maine Railroad, and have been examined by an engineer of the Commission. Nothing, however, was done at that time to carry out the plans projected, and it was not until Mr. Mellen became president of the Boston and Maine, in 1910, that this project again engaged the serious attention of the Boston and Maine Railroad.

Mr. Mellen has stated to the Commission that this matter was taken up soon after his induction into office, and that the Boston and Maine Railroad, if its financial condition had permitted, would have immediately undertaken to construct the railroad directly as a part of the Boston and Maine system. As, however, the Boston and Maine Railroad had already almost reached the limit of its bonded indebtedness under Massachusetts law, and as it was felt that the entire available margin of bonded indebtedness was needed for other necessary expenditures which the company already had in view, the idea was conceived of having the projected road financed and built by an independent company.

Mr. Mellen conferred on this matter with Mr. Ralph D. Gillett, of Westfield, who was then engaged in other construction work for companies connected with the New Haven system. As the result of several conferences it was verbally agreed between Mr. Mellen and Mr. Gillett that Mr. Gillett should finance and construct the road, and that the Boston and Maine should lease it and pay five per cent upon its cost.

In pursuance of this understanding an agreement of association was formed on June 1, 1910, by Mr. Gillett and certain other persons therein named, for the purpose of building the Hampden railroad. On August 4, 1910, the directors named in the agreement filed with the board of railroad commissioners a petition, with the necessary plans, profiles and estimates of cost, for a certificate that public convenience and necessity required the construction of the railroad as proposed in said agreement and in the petition.

After a contested hearing on this petition the board of railroad commissioners, on September 20, 1910, issued a certificate of public convenience and necessity, or a certificate of exigency, as it is usually termed, in compliance with the statute.

The incorporators thereupon began proceedings under the statute for fixing the route of the railroad in the various cities and towns in which it was to be located. During October, 1910, the route was fixed by agreement with the local authorities in the towns of Ludlow, Belchertown and Palmer.

While proceedings were pending for fixing the route in the cities of Chicopee and Springfield, formal action was taken by the directors of the Boston and Maine Railroad approving the plan of leasing the Hampden railroad, as appears from the following vote under date of April 4, 1911:—

Voted, The president is hereby authorized to negotiate the lease of the Hampden railroad, which is to connect with the Central Massachusetts railroad at a point near Bondsville, Mass., upon such terms and conditions as he may deem for the best interests of the company.

Thereafter, on April 17, 1911, by agreement with the municipal authorities of the city of Springfield, the original route in that city as described in the petition filed with the board of railroad commissioners, was varied by running the line of the railroad from a point on the projected location in the city of Chicopee to Athol Junction on the line of the Boston and Albany railroad.

In the city of Chicopee the incorporators were unable to agree with the local authorities, and petitioned the board of railroad commissioners to fix the route in that city. On June 2, 1911, an order was issued by the Board fixing the route of the railroad in that city.

The company had already, in September, 1910, filed a petition with the board of aldermen of the city of Holyoke to fix the route of the projected branch line into that city, but no action was taken thereon, and no further effort was made by the company to fix the route in that city.

On June 2, 1911, the same day on which the board of railroad commissioners fixed the route of the railroad in the city of Chicopee, the Board issued to the associates for the formation of the Hampden Railroad Corporation a certificate of compliance with the laws preliminary to the establishment of a railroad corporation under section 24 of the general railroad law, and on the same date a certificate of incorporation was issued by the secretary of the Commonwealth.

The corporation duly organized by the election of a board of directors, and the choice of the necessary corporate officers, including Mr. Gillett as president. As we have already intimated, Mr. Gillett at that time was also conducting a general contracting business under the name of the Woronoco Construction Company, and in that capacity was engaged in certain street railway construction for the Berkshire Street Railway Company.

In pursuance of the understanding between Mr. Mellen and himself that he should receive the contract for building the Hampden railroad, Mr. Gillett began negotiations with the Boston and Maine Railroad for fixing the unit prices and other terms and conditions under which the work should be done.

At the suggestion of Mr. Mellen, the general auditor of the Boston and Maine Railroad addressed a letter, under date of July 19, 1911, to Mr. E. H. McHenry, vice president in charge of construction, of the Boston and Maine Railroad, requesting the latter to pass upon the propriety of certain unit prices for excavation and overhaul submitted by Mr. Gillett, namely:—

Earth cut,	.	.	.	.	\$0.45	per cubic yard.
Rock cut,	.	.	.	.	1.85	per cubic yard.
Ballast,	.	.	.	.	.60	per cubic yard.
Overhaul,	.	.	.	.	.00½	per cubic yard for each station over 500 feet.

Mr. McHenry replied that the chief engineer of the Boston and Maine Railroad was in the best position to pass upon this matter.

The latter thereupon personally inspected the proposed location of the railroad and got such information in regard to the physical condition of the country traversed as was possible from surface indications and inquiry from local residents.

As the result of this inspection, and after consultation with other engineers on the staff of the Boston and Maine Railroad, and a comparison with the prices paid for similar work by the Boston and

Maine and other railroads in this part of the country, the chief engineer approved the following unit prices for the construction of the Hampden railroad: —

Earth cut, ...	\$0.37½ per cubic yard.
Rock cut, ...	1.50 per cubic yard.
Ballast, ...	.60 per cubic yard.
Overhaul, ...	.00¾ per cubic yard for each station of 100 feet beyond 1,000 feet.

A draft of an agreement between the Hampden Railroad Corporation and the Woronoco Construction Company, providing for the construction of the road on the basis of the above unit prices and of cost plus ten per cent for the balance of the work was then submitted to the Boston and Maine Railroad. On August 4, 1911, the general auditor of the Boston and Maine Railroad addressed a letter to Mr. Mellen enclosing a copy of the proposed agreement, and a few days later Mr. Mellen indicated his approval of the same.

On August 17, 1911, the Hampden Railroad Corporation petitioned the board of railroad commissioners for a certificate preliminary to the location and construction of its railroad under section 71 of the general railroad law, and on the same day the certificate was granted.

Meantime the general solicitor of the Boston and Maine Railroad, in consultation with counsel for the Hampden Railroad, had prepared and submitted to Mr. Mellen a draft of an agreement for the lease of the Hampden railroad to the Boston and Maine Railroad, together with a draft of the lease itself in the form in which it was proposed to be executed.

The proposed agreement for a lease was considered by the board of directors of the Boston and Maine Railroad at a directors' meeting held September 5, 1911, and the following vote was passed: —

Voted, That the president be authorized to execute an agreement for a lease of the road, franchises and property of the Hampden Railroad Corporation, upon substantially the terms set forth in an agreement marked "Agreement for lease, Boston and Maine Railroad and the Hampden Railroad Corporation" herewith submitted and to be filed with the vice-president in charge of accounting.

This agreement is to the effect that the Hampden Railroad Corporation shall forthwith construct its road from Bondsville so as to connect with the Chicopee Falls branch of the Boston and Maine

at Chicopee, and, when requested by the Boston and Maine, also to connect with the Athol branch of the Boston and Albany in Springfield; the road to be a single track, first class railroad, laid out in a reasonable manner for subsequent double tracking, all to be done to the satisfaction of the Boston and Maine Railroad; the road when completed to be leased as set forth in the draft of lease attached, subject to the approval of the board of railroad commissioners; the lease also to be modified in such particulars as the board of railroad commissioners may require; the cost of the railroad as specified by the general auditor of the Boston and Maine Railroad, to be the basis of the stocks and bonds to be issued and assumed by the Boston and Maine as shown in the lease. To meet the cost certified by the general auditor of the Boston and Maine, the Hampden Railroad Corporation was to issue, subject to the approval of the board of railroad commissioners, bonds bearing such rate of interest and to such amount as the Boston and Maine Railroad might determine, the agreed net rental being the interest on the bonds, five per cent on the stock, and \$500 a year for organization expenses, all operating and depreciation charges to be borne by the lessee. There is a further provision that all premiums realized upon the sales of bonds and stocks should inure to the credit of the Boston and Maine Railroad, so far as reducing the principal sum upon which interest and dividends were to be paid.

This contract was signed by Mr. Mellen as president of the Boston and Maine and Mr. Gillett as president of the Hampden Railroad Corporation. This lease was ratified by the stockholders of the Boston and Maine Railroad at the annual meeting on October 11, 1911. At that meeting 309,279 shares, out of a total 421,614, were represented, and the vote in favor of the lease was unanimous. About the same date the contract already referred to for the construction of the railroad was executed by the Hampden Railroad Corporation and the Woronoco Construction Company. The unit prices in this contract, which have already been mentioned, were approved by the chief engineer and the general auditor of the Boston and Maine Railroad by placing their initials under the word "Approved" in the margin.

Meantime, Mr. Gillett and his associates had organized the Hampden Investment Company, of which Mr. Gillett was president, for the purpose of financing the construction of the railroad. Practically the entire capital stock of the Hampden Railroad Corporation, amounting to \$1,400,000, stands in the name of the Hampden Investment Company.

On September 26, 1911, Mr. Mellen, in order to assist Mr. Gillett to obtain the capital for building the road, gave him a letter of introduction to Mr. F. S. Moseley, of the firm of F. S. Moseley and Company. This letter contained the following paragraph:—

By agreement with the board of directors the Boston and Maine is to take a lease of the property when completed, guaranteeing interest on the bonds and five per cent upon the capital stock.

On October 11, 1911, F. S. Moseley and Company having made arrangements for negotiating the loan through certain Boston banks, wrote to Mr. Gillett, agreeing to loan the Hampden Investment Company the sum of \$1,400,000 upon its notes for that amount, secured by a deposit as collateral of 14,000 shares, or the entire capital stock of the Hampden Railroad Corporation, full paid at par. The loan, which was to mature January 15, 1913, was to be discounted by the banks at the rate of four and one-half per cent, and F. S. Moseley and Company as the brokers in the transaction, were to receive a commission of one-half of one per cent.

It was also stipulated that the Hampden Investment Company should pay into its capital account the sum of \$207,000, and the loan was made "with the further understanding that the Boston and Maine Railroad shall certify to the Hampden Railroad, who shall show such certification to the bankers on January 1, 1912, and each three months thereafter, that the work is satisfactory to the Boston and Maine Railroad."

This letter was endorsed as follows: "Approved for the Boston and Maine Railroad, C. S. Mellen, President."

The Hampden Railroad Corporation then proceeded to purchase the necessary lands and rights of way for the location of the railroad, and engaged an engineering, accounting and clerical staff for the supervision and construction of the work.

The work of excavation, representing the portion of the work covered by unit prices in the contract between the Hampden Railroad Corporation and the Woronoco Construction Company, was sub-let by the latter company in November and December, 1911, to two well-known firms of contractors, Holbrook, Cabot & Rollins and C. W. Blakeslee & Sons. The remainder of the work, with the exception of certain bridge construction which was also sub-let, was performed by the Woronoco Construction Company, with its own working force.

All this work was done under the supervision of the engineering staff of the Hampden Railroad Corporation. The general plan for

supervising the construction and checking up of the work of the contractors was agreed to by the chief engineer of the Boston and Maine Railroad, but the actual computation of the amount of excavation from time to time during the progress of the work, and the classification of the material excavated as earth or rock were left largely in the hands of the chief engineer of the Hampden railroad and his subordinates. The data furnished by the latter were, however, periodically checked up by the general auditor and chief engineer of the Boston and Maine Railroad, and the latter personally inspected the work every three months, in order to see that the work was being carried out according to contract and that satisfactory progress was being made.

Specific directions in regard to the width of the excavation and fill, the type and design of bridges, the laying of track and other details of construction were also from time to time given by the chief engineer of the Boston and Maine Railroad and carried out by the engineers of the Hampden railroad.

In this connection it may be proper to refer to the circumstances under which an increase was made in the width of the roadbed as originally projected. The chief engineer of the Boston and Maine Railroad testified that when he approved the prices for the construction of the railroad by the Woronoco Construction Company, he did so on the assumption that the roadbed was to be the standard width. Before the excavation was started he found, however, that the roadbed on which it was proposed to build provided for a width of cuts at sub-grade of only eighteen feet. Thereupon, under date of November 4, 1911, he wrote to Mr. Gillett, recommending that the cuts be made twenty-two feet in width at sub-grade, with $1\frac{1}{2}$ to 1 slope; the fills twenty feet in width at sub-grade, with $1\frac{1}{2}$ to 1 slope; and that the excess of excavation be used in reducing grades.

Sometime after the work was started, the chief engineer of the Boston and Maine Railroad, in order to provide for better drainage and subsequent double tracking of the road, ordered the cuts to be further widened to a total width of thirty-two feet at sub-grade. The additional amount of excavation made it possible to build the fills for the most part of sufficient width for a double track. The masonry for most of the bridges was also, under his instructions, constructed of sufficient width for subsequent double tracking. As the result of these changes it was estimated that the cost of the road was increased by about half a million dollars.

As the work progressed additional capital was secured by marketing, principally through F. S. Moseley and Company, notes of

the Hampden Railroad Corporation, to the aggregate amount of \$2,500,000. We are informed that a considerable portion of these notes are now held by various savings banks in the state.

On December 13, 1912, the board of railroad commissioners approved an issue of capital stock of the Hampden Railroad Corporation to the amount of \$1,400,000.

The pending petition was filed early in the present year, and a preliminary hearing was given by the board of railroad commissioners on January 24th. As the road was not completed at that time the company agreed to have the hearing continued until such time as the road should be substantially completed, in order that the Board might pass in one proceeding upon the entire capitalization necessary and proper for the construction of the road. The matter accordingly went over to June 23rd, when a further hearing was given by the board of railroad commissioners.

Owing to the many complexities in this case, which necessitated a protracted investigation, the Commission, in order to facilitate the early operation of the Hampden railroad, suggested that it would approve any just and equitable operating agreement between the Hampden Railroad Corporation and the Boston and Maine Railroad. The directors of the Boston and Maine Railroad, on July 29, 1913, accordingly passed the following vote:

Voted, That pending any and all proceedings which the president of this company may conclude should be taken in order to secure and perfect the construction of the road of the Hampden Railroad Corporation upon the location on which it has been built, this company will agree to operate said road as constructed on said location, upon such terms as may be just and equitable and shall be approved by the Public Service Commission.

An attempt was made to formulate an agreement with the Hampden Railroad Corporation upon this basis, but the negotiations fell through.

There were also certain matters in controversy between the two railroads in regard to the amount which should be accepted as representing the cost of the railroad under the terms of the lease between the Hampden Railroad Corporation and the Boston and Maine Railroad. On August 19, 1913, the general solicitor of the Boston and Maine Railroad and counsel for the Hampden Railroad Corporation stated to the Commission that the two corporations had agreed that the cost of the railroad for the purpose of defining the liability of the Boston and Maine Railroad under the terms of the lease should

be fixed at the sum of \$3,600,000. Counsel also joined in the request that the Commission should fix the total capitalization of the property at that sum.

Meantime the lease of the Hampden railroad had been executed on March 14, 1913; by Mr. Gillett on behalf of the Hampden Railroad Corporation and by Mr. Mellen on behalf of the Boston and Maine Railroad, and a petition for approval of the same was filed with the board of railroad commissioners on March 31, 1913. The Commission, however, decided to defer the hearing on that matter until the present case had been disposed of.

The lease as executed was identical in terms with the draft of lease attached to the agreement for lease, as approved by the directors of the Boston and Maine Railroad on September 5, 1911, and by the stockholders of the road on October 2, 1911, except that certain dates which had been left blank in the original draft were inserted in the lease as executed.

At a meeting of the board of directors of the Boston and Maine Railroad on December 9, 1913, a resolution was offered that the board of directors should ratify the execution of the lease by Mr. Mellen. This resolution was referred to the executive committee, with instructions to report back to the board at an adjourned meeting held December 17, 1913.

At a meeting of the board of directors on December 17, 1913, the following vote was passed:

Voted, That the ratification at this time of President Mellen's execution of a lease to the Boston and Maine Railroad of the road and property of the Hampden Railroad Corporation is not warranted, and that the General Solicitor be requested to communicate the action of the board of directors to the Public Service Commission.

A copy of this vote was filed with the Commission on December 18, 1913. Accompanying the vote is a preamble, stating in effect that the execution of the lease by Mr. Mellen was premature, as the entire road, including the branch line to Holyoke, has not yet been completed. The reasons which prompted the board of directors of the Boston and Maine Railroad in taking this action will be explained more in detail in a later part of this report.

In addition to the public hearing given on this case on June 23, 1913, a large number of hearings and conferences have been held by the Public Service Commission; expert engineers, accountants and counsel have been employed by the Commission, and the whole sub-

ject-matter has been carefully investigated and considered by the Commission itself.

After this review of the history of the enterprise the first question that naturally suggests itself is why this railroad, involving construction of such a difficult and expensive character, and meeting no pressing transportation needs, should ever have been projected and built. The question is not open to review by this Commission, as it is concluded by the certificate of exigency of the board of railroad commissioners. It may, however, be proper to point out that the certificate of exigency was obtained from the board of railroad commissioners for the construction of a railroad on a radically different route and designed for an essentially different purpose from that of the road actually constructed.

The route of the road as described in the petition and shown on the plans filed therewith extended from Bondsville westerly to Chicopee, thence down the Connecticut river into Springfield, a branch running also from Chicopee northwesterly into Holyoke.

This made a road about twenty-five miles in length, which appeared to offer substantial additional transportation facilities, for local as well as through traffic, not only to Springfield but also to the thriving cities of Chicopee and Holyoke. Indeed, the petitioners stated that they would build the road from Bondsville to Holyoke and Chicopee and Chicopee Falls, whether they built into Springfield or not, and on the faith of that statement local business interests in Holyoke and Chicopee appeared before the Board in favor of the granting of the certificate.

It was, of course, manifest to the Board at that time that no railroad of this character could be successfully financed or operated as an independent venture and that some other arrangement was contemplated by the promoters of the road. The Board, therefore, before granting the certificate of exigency, satisfied itself that the road was being built in the interest and for the ultimate use of the Boston and Maine Railroad, though the exact nature of the relationship was not disclosed.

The total estimated cost of constructing the road from Bondsville to Springfield, on the route originally proposed through Chicopee, a distance of 20.76 miles, according to the detailed estimate filed by the company's engineer, was \$2,190,000. The engineers of the Boston and Albany Railroad, however, claimed that this estimate was too low and presented figures of their own showing a total estimated cost of \$3,167,000.

On the basis of the evidence then presented in regard to the addi-

tional railroad facilities that would be furnished by a railroad of this character, a certificate of exigency was issued by the Board. In the order granting this certificate the following language appears:

The proposed road, if constructed, is intended to serve the cities of Springfield, Holyoke and Chicopee and certain towns easterly thereof. A connection with the Central Massachusetts division of the Boston and Maine railroad appears feasible, and if made will afford a short and convenient transportation route from the cities and towns aforesaid to eastern Massachusetts. Public convenience and necessity having been shown, the certificate should be issued as prayed for.

After receiving the certificate, no attempt was made by the company to connect up with the Chicopee Falls branch of the Boston and Maine in Chicopee, or to build into Holyoke, as set forth in the petition. Moreover, in the city of Springfield, with the consent of the local authorities, the company abandoned its plan for a direct connection with the Boston and Maine railroad in Springfield, and in lieu thereof laid out a new route connecting with the Boston and Albany railroad at Athol Junction, having previously secured trackage rights from that point to the Springfield railroad station by agreement with the Boston and Albany Railroad Company.

But in whatever important respects the location and transportation facilities of the road actually constructed may differ from those of the road for which the certificate of exigency was granted, and to whatever extent the actual cost of the railroad may be found to exceed the estimated cost at the time the certificate was granted, we are advised by the attorney-general of the commonwealth that the Hampden Railroad Corporation has the right under its charter and the laws of the Commonwealth, to build upon its present location.

The question as to how far the action of the Commission in the present proceeding should be affected by the manner in which the location was selected, or by the failure of the company up to the present time to build upon the entire location set forth in the certificate of exigency, is considered in a later part of this report.

For various reasons which need not now be stated, the Commission very early in its investigation of this case concluded that the statement of cost filed by the petitioner could not be accepted as a proper basis for capitalization and that it would be necessary to secure all information that might be available from other sources in regard to the proper cost of constructing the road. The Commission therefore asked the officers of the Woronoco Construction Company to furnish the Commission with evidence as to the terms

of the sub-contracts made with Holbrook, Cabot and Rollins and C. W. Blakeslee and Sons and the actual amounts paid thereunder. This evidence was duly submitted, and the Commission also took the oral testimony of Mr. Frederick Holbrook of the firm of Holbrook, Cabot and Rollins.

It appears that on the section of the railroad sub-let to Holbrook, Cabot and Rollins, the work was contracted to be done and was paid for on the basis of the following unit prices:

Earth cut, ...	\$0.25	per cubic yard.
Loose rock, ...	.50	per cubic yard.
Solid rock, ...	1.10	per cubic yard.
Overhaul, ...	.00½	per cubic yard for each 100 foot station beyond 1,000 feet.

The contract with C. W. Blakeslee and Sons provided for the following unit prices upon the section of the road constructed by that company:

Earth cut, ...	\$0.25	per cubic yard.
Loose rock, ...	.50	per cubic yard.
Solid rock, ...	1.00	per cubic yard.
Overhaul, ...	.00¾	per cubic yard for each 100 foot station beyond 1,000 feet.

The total yardage of overhaul and excavation under the several classifications, as approved by the engineers of the Hampden Railroad Corporation and the several amounts paid upon that basis by the Woronoco Construction Company to these sub-contractors were as follows:

Holbrook, Cabot and Rollins:			
486,137 cubic yards earth cut at \$0.25,	.	.	\$121,534 25
302,239 cubic yards loose rock at .50, .	.	.	151,119 50
176,470 cubic yards solid rock at 1.10, .	.	.	194,117 00
30,488,058 station yards overhaul at .00½,	.	.	152,440 29
			\$619,211 04
C. W. Blakeslee and Sons:			
277,756 cubic yards earth cut at \$0.25,	.	.	\$69,439 00
383,002 cubic yards loose rock at .50, .	.	.	191,501 00
496,001 cubic yards solid rock at 1.00,	.	.	496,001 00
58,431,240 station yards overhaul at .00¾,	.	.	219,117 15
			\$976,058 15

It appears, therefore, that the aggregate amount paid to the two sub-contractors for excavation and overhaul was \$1,595,269.19, and that the aggregate yardage under the several classifications, as represented by the amounts allowed as a basis of payment to both sub-contractors, is as follows:

Earth cut, ...	734,920 cubic yards.
Loose rock, ...	685,241 cubic yards.
Solid rock, ...	672,471 cubic yards.
Overhaul, ...	87,794,779 station yards.

In this connection it may be stated that a careful examination of the excavation work, for the purpose of computing quantities, was made by Hollis French and Allen Hubbard, consulting engineers, on behalf of the Commission. Each cut and fill was separately measured and an estimate made of the yardage in each case. The aggregate quantities so found are given in the report filed by French and Hubbard with the Commission under date of June 1, 1913.

It appears also that after the work of excavation was completed the engineering department of the Boston and Maine Railroad made an examination of the work on the ground, entirely independent of the Hampden railroad engineers, in order to verify the quantities. The quantities so found are given in a letter addressed to the general auditor by the chief engineer of the Boston and Maine Railroad under date of July 7, 1913, which has been filed with the Commission.

The total yardage of excavation as determined by French and Hubbard and by the Boston and Maine engineers is substantially identical with the total yardage of excavation found by the engineers of the Hampden railroad. There is also little variation in the three estimates in regard to the quantities of solid rock. The earth and loose rock have not been separately classified in the report made by the Boston and Maine engineers, but French and Hubbard's figures show a somewhat larger amount of loose rock and a smaller amount of earth than the figures of the Hampden railroad engineers. There is a somewhat larger variation in the station yards of overhaul, but no greater than might be expected from the separate examination of different engineers. The engineers of the Hampden railroad, as they supervised the work during its progress, were in the best position to give an accurate statement of quantities, and the independent examination made by the other engineers is a practical verification of their results.

In the statement of expenditures filed by the petitioners purporting to show the cost of the road, the following entry appears in regard to the payments made for excavation and overhaul:

Earth cut, 987,836 cubic yards at \$0.37½,	. . .	\$370,438 47
Rock cut, 1,104,796 cubic yards at 1.50, .	. . .	1,657,194 00
Overhaul, 87,794,779 station yards at .00¾,	. . .	658,460 79

In other words, this statement purports to show that the Hampden Railroad Corporation, in compliance with the terms of its contract with the Woronoco Construction Company, paid the latter company \$2,686,093.26 for work which had been performed by the sub-contractors at a total cost of \$1,595,269.19. This would represent a profit to the Woronoco Construction Company on this portion of the work of \$1,090,824.07.

In the first place, it should be pointed out that the amount shown to have been paid to the Woronoco Construction Company is excessive, even upon the basis of the contract between the Woronoco Construction Company and the Hampden Railroad Corporation. It will be noticed that this contract classified the material excavated into two units, earth cut and rock cut, while the sub-contracts were let on a three-unit classification, representing earth cut, loose rock and solid rock. In a three-unit classification, according to general engineering practice, solid rock is understood to include rock of more than one cubic yard in volume, while loose rock includes all rock of less volume and hard pan. In a two-unit classification, on the other hand, all rock of less than a cubic yard and hard pan fall into the classification of earth cut. In other words, earth cut in a contract made upon a two-unit basis would represent the aggregate of the earth cut and loose rock if the material were classified on a three-unit basis.

If this principle had been applied in translating the figures approved for the sub-contractors into a two-unit basis, the aggregate amount of earth cut would be 1,420,161 cubic yards, and the total rock cut 672,471 cubic yards. The engineer of the Hampden Railroad Corporation, however, instead of applying this principle, allocated 252,916 yards of the loose rock to the earth classification and allocated the balance, amounting to 432,325 yards, to the rock classification. In other words, he re-classified over 60% of the loose rock as rock cut under the two-unit classification.

No satisfactory explanation could be made by the engineer of the Hampden Railroad Corporation as to why any portion of the loose rock should have been so classified or as to the method or principle

which he employed in arriving at his results. While his computation of quantities under a three-unit classification may, as we have already pointed out, be accepted as accurate, his re-classification of this material on a two-unit basis seems to be clearly erroneous. If this error were corrected we should find that the total amount payable to the Woronoco Construction Company on the basis of its contract with the Hampden Railroad Corporation would be \$2,199,-727.72. This would represent a profit to the Woronoco Construction Company on this portion of the work of about \$600,000, or nearly forty per cent.

On this showing the question naturally arises as to why the Boston and Maine Railroad in July, 1911, should have been willing to approve unit prices for this portion of the work so much higher than the prices embodied in the sub-contracts made four or five months later. For the purpose of showing the unit prices which should properly be paid for work of this character, figures were filed with the Commission in regard to the competitive bids which were submitted in March, 1912, for the construction of the Southern New England railroad. If the excavation and overhaul on the Hampden railroad had been figured on the basis of the lowest bid made on the Southern New England railroad, the amount would have been about \$200,000 less than the amount paid the sub-contractors, while if it had been figured on the basis of the average unit prices in the five lowest bids on the Southern New England railroad the amount would have been practically the same as the amount paid to the sub-contractors on the Hampden railroad. As, however, the work on the Southern New England railroad was never completed, any evidence based upon the bids made for construction on that road is of doubtful value as a basis for determining the proper cost of work on the Hampden railroad.

So far as bids made for excavation and overhaul on other railroads may be properly considered as a basis for determining the proper unit prices to be applied to similar work on the Hampden railroad, it would seem that the prices paid for the construction work on the extension of the Boston and Maine railroad from Hinsdale to Brattleboro, Vermont, would afford a fairer basis of comparison. That work was let only two or three months after the contracts were made with the sub-contractors on the Hampden railroad, and one of these sub-contractors, Holbrook, Cabot and Rollins, was the lowest of six competitive bidders for the work done on the Hinsdale extension. Mr. Holbrook also testified that the conditions on the two roads were substantially similar.

If the excavation and overhaul on the Hampden railroad were figured at the Hinsdale prices, the total cost would have been \$2,-142,884.64, while the amount payable under the unit prices approved by the Boston and Maine Railroad, as already stated, was \$2,199,727.72. As the unit prices for work of this character are determined so largely by the actual conditions in each case, it is possible to give an exaggerated significance to comparative bids upon other work. The comparison made with the prices paid on the Hinsdale extension seems, however, to go a long way towards justifying the propriety of the unit prices approved by the Boston and Maine Railroad in this case.

Mr. Holbrook himself testified that owing to scarcity of work and other conditions at that time, and the necessity of keeping his plant in operation, he was willing to do the work at a much lower price than he would have accepted two or three months later. Mr. Holbrook also stated that he had estimated that only about 10% of the excavation would be rock, and that if he had known that the amount of rock was as large as that which he actually encountered, he would not have done the work at that price. The Commission is satisfied, from consultation with its own engineers, and as a result of its own knowledge and investigation, that the prices paid to the sub-contractors were somewhat less than the prices that would ordinarily be paid for work of this character.

It may be added that the engineers of the Hampden railroad and those of the Boston and Maine Railroad were deceived in the same way as Mr. Holbrook in regard to the probable amount of rock cut in this excavation. At the time all the contracts were let it was the belief of all parties that the excavation would be largely of earth and gravel and the unit prices approved by the Boston and Maine Railroad were based upon that assumption. If it had not been for the unexpectedly large proportion of rock cut and the additional excavation on account of the widening of the cuts for double tracking, as subsequently ordered, the profit to the Woronoco Construction Company, under the terms of its contract with the Hampden Railroad Corporation, would undoubtedly have been reduced by more than one-half. This amount would have been still farther reduced except for the fact that the Woronoco Construction Company, through the accident of special conditions then existing, was enabled to get the work done at somewhat less than normal prices.

Viewing the contract between the Woronoco Construction Company and the Hampden Railroad Corporation, as approved by the Boston and Maine Railroad, in the light of conditions which existed

or might reasonably have been anticipated at that time, the unit prices mentioned in that contract do not seem so high as to raise any reasonable doubt that they represent the honest judgment of the officials of the Boston and Maine Railroad who passed upon them. In an ordinary case these prices might fairly be accepted as a basis for determining the actual cost of construction to the railroad company for whom the work was done. As stated by the Court in the case of *Falmouth vs. Falmouth Water Company*, 180 Mass. 325, "what is actual cost to the company includes a profit to the contractor, just as what is actual cost to the contractor includes a profit to the merchants of whom he buys his material".

The Commission, however, has not been willing to accept the contract referred to as a basis for computing the actual and proper cost of the Hampden railroad because this is not an ordinary case.

In the first place, attention should be called to the unusual relations between the Hampden Railroad Corporation and the Woronoco Construction Company. Mr. Gillett stated that he was the Woronoco Construction Company. It seems that he might have stated with almost equal accuracy that he was the Hampden Railroad Corporation, as the eminently respectable gentlemen who were associated with him in the directorate of that railroad were apparently little more than lay figures. In his capacity as the Hampden Railroad Corporation it was to his interest that the work should be done at the lowest possible price. In his capacity as the Woronoco Construction Company it was to his interest that the work should be done at the highest possible price. The two relations are so inconsistent as to amount to a practical abandonment by the Hampden Railroad Corporation of any exercise of disinterested judgment or prudence, such as we might reasonably expect, in regard to its expenditures and the general management of its corporate affairs.

Under these circumstances any action taken ostensibly by the Hampden Railroad Corporation is open to the suspicion of being dictated by the interests of the Woronoco Construction Company. The latter company, owing to the favorable terms on which the sub-contracts were let, expected to make a large profit on every yard of excavation and overhaul and by the terms of its contract with the Hampden Railroad Corporation was also to receive a profit of 10% upon all other expenditures made in the construction of the road. This situation placed the contractor under the constant temptation to influence the policy of the Hampden Railroad Corporation in favor of the most wasteful rather than the most economical method of laying out and constructing the railroad.

The Boston and Maine Railroad, having full knowledge of this situation and having committed itself by the execution of the lease to ultimate responsibility for the expenditures incurred, was therefore under the obligation of exercising practically the same degree of independent supervision as if it were directly building the road. It would seem, however, that in some respects the supervision actually exercised by the Boston and Maine Railroad was not fully up to that standard.

While the plans showing the projected location of the road were shown to and approved by Mr. Mellen as being in conformity with his views in regard to the alignment and grade of the railroad, there is no evidence that any careful, independent survey was made by the engineers of the Boston and Maine Railroad for the purpose of selecting the best and most economical route consistent with Mr. Mellen's general standard for the road. The exact determination of the route seems to have been left mainly in the hands of the engineer of the Hampden railroad. This engineer testified that he made numerous surveys and plans of various routes but as none of these surveys and plans have been preserved, except the one adopted, the engineers of the Commission are not able to compare the probable cost and utility of alternative routes with the one actually selected. It may be stated, however, that in so far as the route selected involved an additional expense by reason of cutting through hills, in order to obtain a proper alignment, instead of going around them, it was in exact accord with Mr. Mellen's ideas.

It has been suggested also that under the agreement made in February, 1911, between the New York, New Haven and Hartford Railroad Company and the lessee of the Boston and Albany railroad, which provided among other things for the establishment of such through routes over the lines of the New Haven system and the Boston and Albany railroad as the public interest might require, the Boston and Maine Railroad could probably have avoided the necessity of building the Hampden railroad by securing trackage rights over the Athol branch of the Boston and Albany railroad from Bondsville to Springfield. The building of the Hampden railroad in preference to making that arrangement was doubtless due to the fact that the alignment and other conditions on the Athol branch did not conform to Mr. Mellen's standard for a road which he expected to operate as part of a through line between New York, Boston and northern New England points.

It may be proper also to point out that when the directors and stockholders of the Boston and Maine Railroad officially ratified the

lease of the Hampden railroad the present location of that road had already been fixed as a matter of public record. To what extent this action by the Boston and Maine Railroad may be held to operate as a ratification of the route actually selected we do not feel called upon to decide.

It seems to us that any speculation in regard to the selection of the route of the Hampden railroad is important only as it may tend to throw light upon the conduct and motives of parties and the good faith of the whole enterprise. The board of railroad commissioners in issuing their certificate of compliance under section 24 of the general railroad law, determined that all the requirements of law preliminary to the incorporation of a railroad corporation had been complied with. As these requirements include the fixing of the route of the railroad in compliance with the statute, the action of the board of railroad commissioners amounted to a finding that the route of the railroad had been legally fixed upon the location where the railroad has since been constructed.

The effect of this finding is indicated in the following extract from the opinion of the attorney-general:

It is clear that the legislature intended that the board of railroad commissioners should act as final arbiters upon the question whether the incorporators had complied with the requirements of the statute preliminary to incorporation, and that when that board had certified that it had been shown to its satisfaction that the requirements of the law had been complied with, the secretary of the Commonwealth, the incorporators, the investors and the public might rely upon the decision, and that all parties should be bound by the record.

After the board of railroad commissioners has, in due course, declared that a railroad meets a public need, that the company has conformed to all laws preliminary to organization and taken the necessary steps preliminary to construction; after the existing route has been fixed either by the local municipal authorities or by the board of railroad commissioners itself, after that Board has approved an issue of stock to meet the expense of construction and after the railroad has actually been built upon the route fixed and declared safe for operation, it would seem, in view of the legal opinion rendered by the attorney-general and the general equities of the case, that it is now too late for the Commission to consider the pending case from any other aspect except that of determining the proper cost of the road upon the location where it has actually been

built. If this Commission should now undertake to set up a different doctrine; if a railroad company, after obtaining a location in compliance with the statute and with the official approval of the public authorities, is not to be permitted to capitalize the proper cost of its railroad as actually constructed upon that location, it means, of course, the end of all railroad construction in the state.

There is another respect in which, however, it would seem that the supervision exercised by the Boston and Maine Railroad was not fully up to the standard which it would ordinarily apply to work that was being directly done for that railroad. The chief engineer of the Boston and Maine Railroad testified that if the Hampden railroad had been built directly for the Boston and Maine Railroad the construction would have been under constant supervision by the engineers of the Boston and Maine Railroad during the progress of the work in order to make a proper estimate of quantities as the basis for payments made to the contractors. This part of the work was, however, left almost entirely in the hands of the engineers of the Hampden railroad.

It is true that the excavation work was carefully measured and classified by the engineers of the Boston and Maine Railroad upon the completion of the work, but while it was possible in that way to check up the total amount of excavation with reasonable accuracy, it was impossible to make more than a rough approximation of the respective amounts of earth and rock cut by any examination made after the work was completed.

Some criticism has also been made of the order issued by the chief engineer of the Boston and Maine Railroad directing the cuts to be excavated of sufficient width for subsequent double tracking. Mr. Mellen himself stated that if he had known of it in season he would have countermanded that order as he believed that there was no sufficient reason for incurring that additional expense at that time. He stated, however, that in his opinion the road would ultimately have to be double tracked and that the only loss would be the interest charges that would have to be carried as a result of prematurely undertaking that work. On the other hand, the chief engineer of the Boston and Maine Railroad stated that he believed that he was carrying out Mr. Mellen's ideas in ordering a widening of the cuts for subsequent double tracking. He also stated that some widening of the cuts was necessary in order to provide for adequate drainage and that it seemed wiser to add sufficient additional width to the cuts to make it possible for the road to be double tracked at a later time, especially as that work could be done in connection with the

original excavation for little more than half what it would cost after the road was in operation. If that statement is correct, it would appear that the saving in the construction cost would offset the interest charge, figured at the rate of 5% compounded, for about fourteen years. If, therefore, it might reasonably have been anticipated that the necessity of double tracking the road would arise within that period, the action taken would seem to be justified upon business grounds.

The lease between the Hampden Railroad Corporation and the Boston and Maine Railroad provided that the road should be laid out in a reasonable manner for subsequent double tracking. While this provision in the lease did not give any express warrant to the chief engineer of the Boston and Maine Railroad to construct the railroad upon that basis, it is an indication that the management of the road expected that double tracking would be necessary at some later time.

There would seem to be no doubt that the chief engineer of the Boston and Maine Railroad in this matter acted in accordance with what he believed to be the desires of the chief executive officer of the road and in the honest belief that this additional construction was desirable in the interests of the Boston and Maine Railroad. Indeed, it does not seem unlikely that if Mr. Mellen had consulted with the chief engineer in regard to this matter and had been apprised of the actual conditions from an engineering standpoint he might have agreed as to the desirability of having this work done when and as it was. Moreover, unless there was a well founded belief on the part of the officials of the Boston and Maine Railroad that the Hampden railroad would develop sufficient business to warrant the early double tracking of that road as well as additional double tracking on the Massachusetts Central railroad, it is unlikely that the project would have been conceived in any form.

In any event, the full responsibility for making this change rests with the Boston and Maine Railroad, and as we have no doubt that it was done in the exercise of sound judgment and discretion on the part of the officials having that matter in charge, we see no reason why any expense properly incurred as the result of this widening of the road should not be subject to capitalization.

The general method under which this work was done is, however, in one respect open to just criticism. The uniform practice of the Boston and Maine Railroad in relation to the construction of new lines has been to solicit competitive bids, and to award the contract to the lowest responsible bidder. In this case, however, Mr. Gillett

was specially commissioned to construct the road, and no matter how honest the officials of the Boston and Maine Railroad may have been in fixing the unit prices and the other terms under which the road should be built, it seems probable that if the contract had been awarded after competition the prices would have been somewhat more favorable to the Boston and Maine Railroad than those actually approved.

It is true that the practice of selecting a favored contractor, usually upon the basis of allowing him a specific profit upon the actual cost of the work, is not uncommon upon other railroads and street railways, both in this state and in other parts of the country. An arrangement of this kind may be justified in the case of a rush job, or where there are special conditions which make it impracticable for a contractor to make an intelligent estimate in advance of what the work will be likely to cost. Except under such conditions, and there has been no claim that they existed in this particular case, the selection of a contractor without competition is apt to cause a suspicion of favoritism, and to promote wasteful methods of construction. The Commission is not disposed to view that practice with favor, either in this case or in any other that may hereafter come before us.

In view of the fact that those responsible for the construction of this road have not, in our judgment, conformed in all respects to a proper standard of judgment and prudence, it has seemed to us that the contract between the Hampden Railroad Corporation and the Woronoco Construction Company cannot properly be taken as a basis for computing the proper cost of the road.

On the other hand it has been argued that this case falls within the doctrine of *Old Dominion Copper Co. v. Bigelow* (203 Mass. 159) and similar cases which lay down the principle that when a trustee abuses his trust estate for his own benefit his expenditures are to be allowed only so far as they are shown to be beneficial to his estate. If that theory were applicable to the present case it would seem to require that the Hampden railroad should be capitalized upon the basis of its probable earning power and its value as an agency of transportation and not upon the basis of cost.

That theory, however, rests on the assumption that the entire enterprise is tainted with fraud. In our judgment such an assumption is unwarranted in the present case. We believe that no evidence has been presented to the Commission to justify the view which some persons have seemed disposed to entertain that this whole enterprise was conceived and carried out, not for the purpose

of meeting any legitimate needs of transportation, but for the sole purpose of permitting Mr. Gillett and his associates to make an unconscionable profit through exorbitant and wasteful expenditures incurred in the building of the road.

Whatever difference of opinion there may be in regard to the wisdom of building this railroad, there can be little doubt that the plan was honestly conceived in the belief that the undertaking would prove beneficial to the Boston and Maine Railroad. Indeed, the good faith of the project is almost conclusively established by the fact that it received the approval of the directors and stockholders of the Boston and Maine Railroad, as well as of the members of the railroad commission, without a dissenting voice. It will hardly be charged that the entire body of stockholders of the Boston and Maine Railroad were engaged in a conspiracy to defraud themselves and that the board of railroad commissioners was a party to the conspiracy.

But even if the plan was honestly conceived, it is argued that it was not honestly carried out owing to the breach of trust involved in Mr. Gillett's dual relationship to the Hampden Railroad Corporation and the Woronoco Construction Company. If this railroad had been built by the Hampden Railroad Corporation in its own interest this charge of bad faith would appear to be warranted. But any view of the case which is based solely upon the relations between the Hampden Railroad Corporation and the Woronoco Construction Company, and which disregards the participation of the Boston and Maine Railroad in the undertaking, is entirely inconsistent with the evidence in the case.

For whatever reason it may have seemed desirable that this railroad should be constructed and financed by a separate corporation, whether it was owing to the financial condition of the Boston and Maine Railroad, or the desire to prevent the Grand Trunk Railway from building into Springfield, or for any other legitimate or illegitimate reason, there can be no possible doubt, from all the evidence, that this railroad was conceived from the very beginning as a subsidiary of the Boston and Maine system; and the whole history of the enterprise, which we have already given in detail, shows that this road was constructed under conditions which recognized that the Boston and Maine Railroad was the real party in interest, and as such had the right absolutely to determine, and did determine, the contract price and all the conditions under which the work should be done. On all the facts in the case it would appear that the Hampden Railroad Corporation, in executing the agreement for the

construction of the railroad by the Woronoco Construction Company, acted merely as an agent or intermediary in reducing to contractual form the terms and conditions previously agreed upon by the Boston and Maine Railroad.

The present case is clearly distinguishable from the case of *Old Dominion Copper Company v. Bigelow*, already referred to. In that case a group of men, purporting to represent opposing interests, entered into an agreement which would not have been possible if their interests had really been adverse. That case is authority for a most wholesome doctrine. It deals with an attempt to secure secret profits at the expense of innocent parties. Such an attempt might well be given a name less tender than constructive fraud.

In this case, however, from the first, opposing interests have been engaged in good faith in determining the cost of the railroad. Moreover, there has been no concealment or subterfuge. From the very first it was understood and agreed that Mr. Gillett was to act in the dual capacity of promoter and contractor for this railroad, and his relations with the Hampden Railroad Corporation and the Woronoco Construction Company growing out of that arrangement were known to and never adversely criticised by the Boston and Maine Railroad.

It is true, as we have already pointed out, that this whole arrangement was against sound public policy, and to that extent Mr. Gillett's conduct as a party to that arrangement may be justly criticised; but he can hardly be blamed for matching his wits against those of the officials of the Boston and Maine Railroad and attempting to secure as large a profit as possible from the building of the road. Indeed, he may have felt that he was entitled to something more than the ordinary contractor's profit, as he was to receive no separate compensation for his services in organizing and financing the railroad.

If there was an adversity of interest between the contractor who built the road and those who determined the price he should be paid for his work, there seems to be little ground for attempting to give a sinister coloring to the fact that he expected to make a profit out of his contract. Except for the expectation of profit no contract would ever be taken. Those who assume the responsibility of charging Mr. Mellen and Mr. Gillett with a conspiracy to defraud the Boston and Maine Railroad for their personal profit should be prepared to prove it, not by insinuation, suspicion and surmise, but on the entire evidence in the case.

It is true that in several respects the methods of building this

railroad lacked sound business prudence and tended to extravagance and waste, but any failure on the part of the Boston and Maine Railroad to protect its own interests as jealously as it might does not necessarily raise any presumption of fraud or bad faith. This distinction suggests the principle which we believe should be applied in determining the proper capitalization of this road. It should not be capitalized upon the basis of the actual cost including a reasonable contractor's profit because all the expenditures have not been prudently and properly incurred. Neither should it be capitalized upon the basis of the value of the road as an agency of transportation because there is no evidence to warrant the assumption that the whole transaction was tainted with fraud. It would seem that the correct principle to apply to the present case is to eliminate any excess of cost due to improper or improvident methods of construction and to capitalize the road for such amount only as it would have cost if built in a careful, prudent and business-like way.

In applying that principle, we believe that all expenditures due to the intervention of unnecessary agencies should be eliminated. We can see no sufficient reason why the Boston and Maine, if it deemed the construction of this connecting railroad beneficial to its transportation system, should not have proceeded directly to build this road under the statute, as an extension of its existing lines.

Even if the Boston and Maine Railroad had practically reached the limit of its bonded indebtedness under Massachusetts law, through expenditures already made or in contemplation, an additional issue of stock sufficient for the purpose might undoubtedly have been marketed at that time. Moreover, if the strategist then in control of the Boston and Maine Railroad desired to checkmate the Grand Trunk Railway, without showing his hand, that motive can hardly be advanced as a justification for the capitalization of any unusual expenditures directly attributable to the consummation of that plan.

We have already stated the general principle which we have concluded to adopt for determining the proper capitalization of this railroad. In applying that principle, we have endeavored to ascertain the amount which the road would have cost if built directly by the Boston and Maine Railroad in the customary and most economical way; we have taken into account the actual expenditures made by the Hampden Railroad Corporation and the Woronoco Construction Company, and we have also considered various engineering estimates of the reproduction value of the property.

If the Boston and Maine Railroad had undertaken to build this road in the ordinary way, there is no reason to doubt that the subcontractors would have been willing to build the road upon the same terms as those agreed to with the Woronoco Construction Company, and that the intervening profit of the latter company would have been eliminated. In regard to the remainder of the work, which was directly done by the Woronoco Construction Company on the basis of actual cost plus ten per cent, wasteful methods were employed in the track laying and certain other parts of the work. If the work contracted for on a cost and percentage basis had been done on a competitive basis, we are satisfied that it would have resulted in a substantial decrease of cost. In so far, therefore, as the proper cost of this railroad is to be determined by what it would have cost if built directly by the Boston and Maine Railroad, it would appear that no profit whatever can be allowed to the Woronoco Construction Company upon any part of the work.

It appears from a report made to the Commission in September, 1913, by Harvey S. Chase & Co., certified public accountants, that the total cost of the construction of the Hampden railroad, including the net amount of interest paid and unpaid bills, as shown by the books, records and vouchers of the Hampden Railroad Corporation and of the Woronoco Construction Company, was \$3,367,-789.48.

As already stated, the Commission employed Hollis French and Allen Hubbard, consulting engineers, for the purpose of making an appraisal of the road. Mr. E. K. Turner, consulting engineer, and Mr. H. W. Hayes, engineer of grade crossings in the department of the attorney-general of the commonwealth, were also employed by the Commission for the purpose of making an examination and appraisal of the railroad property. The two members of the Commission who have had technical railroad experience and are familiar with the methods and costs of railroad construction, have also made an independent appraisal based upon an examination of the railroad property and a study of the data presented by the engineers employed by the Commission.

All of these valuations are large in comparison with the original estimate of \$2,190,000 made to the board of railroad commissioners by the engineer of the Hampden Railroad Corporation in 1910, and in comparison with the figure of \$2,500,000 or \$2,600,000 which the president and other officials of the Boston and Maine Railroad had in mind as the probable cost of the road. As a rule, however, estimates of cost made in connection with a petition for a certificate

of exigency have not been worked out with sufficient care and detail to be taken as an exact basis of the probable cost. As we have already pointed out, the original estimate in this case was criticized by the engineering department of the Boston and Albany railroad as being almost a million dollars too low. So far as it was possible to compute the value of the work in advance, it would seem that the figures in the minds of the officials of the Boston and Maine Railroad represented a fair estimate of the probable cost of the railroad.

The increase in the cost of the railroad as constructed was due largely to two factors, to which some reference has already been made.

One cause for the additional cost was the unexpectedly large proportion of rock cut. In a preliminary estimate filed by the engineer of the Hampden Railroad Corporation in April, 1911, the amount of rock cut represents a little less than eight per cent of the estimated amount of total excavation. As a matter of fact, when the work was actually done it was found that the solid rock represents almost exactly one-third of the total excavation. As the cost of rock excavation is about four times that of earth excavation it will be easily seen that this large difference in the proportion of rock cut would add greatly to the total cost. Computed on the prices paid to the sub-contractors this increase would amount to over \$375,000.

The other factor is the widening of the cuts and fills in order to permit of subsequent double tracking. As we have already stated, in our discussion of that matter, it was roughly estimated that this change added about half a million dollars to the cost of the road.

In view of statements made during the progress of the hearings, to the effect that the rails and ties of this railroad are defective, it is perhaps proper in this connection to point out that the construction of the roadbed, track, bridges and stations is of the highest standard throughout. The succession of deep rock cuts and high fills and other physical conditions also make it apparent even to the eye of the layman that the road could not have been built except at a very high cost.

Objection has also been raised because the petitioner, instead of purchasing or taking a right of way not exceeding five rods in width, has purchased about three times the amount of land necessary for that purpose.

As a large part of this railroad is built upon a high embankment it was doubtless cheaper in many cases to acquire an entire parcel

of land than to purchase a right of way through it and to build an underpass so as to afford a connection between the parcels of the remaining land under the statute. The adoption of such a plan is consistent with sound business principles, and there seems to be nothing in the cases or statutes which would interfere with the right of a railroad corporation, within reasonable limits, to purchase more land than is needed and to sell the remnant.

In determining the proper cost of the right of way the Commission has deducted the salvage value of the property purchased by the company and not required for railroad purposes. The net cost upon that basis, in our judgment, is less than it would have cost the company for the purchase of the right of way and incidental damages.

After a careful investigation and consideration of the evidence adduced at the hearings, the reports of the accountants and engineers of the Commission and all available sources of information, the Commission finds that the lawful and proper cost of the completed railroad, including interest charges up to December 1, 1913, is \$3,300,000.

This sum represents a reduction of more than a million dollars in the gross cost of the completed road upon the basis of the figures originally filed by the petitioners and is also less than the actual amount shown by the accountants of the Commission to have been expended by the Hampden Railroad Corporation and the Woronoco Construction Company in the construction of the road. In other words, as the result of this finding, it would appear that Mr. Gillett and his associates will not only be deprived of any profit or compensation for promoting and building the railroad, but may be obliged to stand a financial loss. In so far as this result follows from the application of the principle we have adopted, it seems to be unavoidable. Moreover, it may not be entirely regrettable in the public interest if the general method of railroad promotion and construction employed in this case should be found to be unprofitable.

In reaching its conclusions the Commission has given due consideration to the recent action of the directors of the Boston and Maine Railroad in refusing to ratify at this time Mr. Mellen's execution of a lease to the Boston and Maine Railroad of the road and property of the Hampden Railroad Corporation.

In the preamble accompanying this vote the refusal to ratify the execution of the lease at this time is based upon two grounds. First, under the terms of the agreement of lease approved in October, 1911, the Boston and Maine Railroad is not bound to execute a

lease until a draft of the instrument has been submitted to the Public Service Commission and its terms approved. Second, under the terms of the agreement of lease it is the clear intention of the parties that the lease should be made only if and when the Hampden railroad, as defined by its charter, is completed: up to the present time a portion of the road only has been completed and a ratification of the lease would put the Boston and Maine Railroad under the obligation of finishing the road to Holyoke and of otherwise completing the road as required by the charter of the Hampden railroad.

It seems clear that neither the Hampden Railroad Corporation nor the Boston and Maine Railroad is now in a financial position to build the branch line into Chicopee to connect with the Chicopee Falls branch of the Boston and Maine railroad or the branch line into Holyoke. Indeed, it is doubtful whether a legal location for these branch lines could now be obtained. If, under the terms of its charter, the Hampden Railroad Corporation is under obligation to build these branch lines within four years from the date of its certificate of incorporation, under penalty of forfeiture of its charter, it seems desirable that the two railroad companies should join in a petition to the legislature for a relief from that obligation.

In the memorandum explaining the failure of the directors of the Boston and Maine Railroad to ratify the lease at this time it is admitted that the road was built at the instance and with the approval of the Boston and Maine Railroad and there is no intimation that the Boston and Maine Railroad will not be bound to execute a lease of the existing railroad if the difficulties in regard to further construction can be removed. Unless some satisfactory adjustments can be reached we understand that it is the intention of the Hampden Railroad Corporation and its creditors, in so far as they would be subrogated to its rights, to claim compensation in damages to the full amount of the investment.

In any event the question of whether the Boston and Maine Railroad, taking into account all that it has done and failed to do, is bound ultimately to accept the situation and to take the Hampden railroad as lessee, is one that remains to be tried and settled. Whatever bearing it may have on the pending petition for a lease of this railroad, it is not directly pertinent to the present proceeding. The company is entitled to every facility under the law for financing the construction of its railroad. The Commission is under obligation to act upon the petition before us and to render its decision within thirty days from the date of the last hearing thereon. The failure of the Boston and Maine Railroad to approve a lease of the Hamp-

den railroad at this time, whether owing to complications in regard to future construction or to the present critical financial situation of the Boston and Maine Railroad, does not relieve the Commission from the obligation of acting upon the present petition for approval of an issue of bonds to fund floating debt properly incurred in the construction of the portion of the railroad already completed. Neither does it affect the past relations between the two railroad companies in the construction of the existing road or the general principles which we have adopted as the basis of capitalization in this case.

The Commission has also given due consideration to the fact that the entire capital stock of the Hampden Railroad Corporation has been pledged with local banks and that the notes of the corporation are in large part held by our savings banks and other banking institutions. The fact that the bankers who have furnished all or a large part of the money spent on the railroad have proceeded in absolute good faith and in reliance upon what they reasonably believed was a proper and business-like arrangement is one of the many difficulties which have beset the Commission in reaching a sound and satisfactory conclusion on the questions of law and public policy involved in this application.

If proof can be offered of any actual wrong-doing we must assume that the banks have their appropriate legal remedy. But if it is merely a case of unfortunate investment, it does not seem to us that the Commission can properly attempt to relieve the investors from the consequences of the business risk which they voluntarily assumed. While the rights of bona fide investors cannot be ignored, the primary duty of the Commission in the present proceeding is to protect the public interest by requiring that only moneys honestly and with reasonable prudence invested in a public utility shall be capitalized.

William B. Lawrence, a citizen of Massachusetts and a stockholder in the Boston and Maine Railroad, appeared in the proceedings and was heard in opposition to the petition. He does not claim to be either a stockholder in or a creditor of the Hampden Railroad Corporation. No ruling is made on the question of law as to whether he is legally aggrieved by any of the findings or rulings made in this opinion. But in order to save all his rights, if any, his requests for findings and rulings are, except as otherwise shown in the foregoing opinion, denied.

Nothing in this opinion is to be taken as forecasting directly or indirectly the attitude of the Commission on the petition for the approval of the lease of this railroad to the Boston and Maine Rail-

road, on which no hearing has yet been had. Neither is it to be understood that any finding now made represents any conclusion on the part of the Commission that the value placed upon the railroad property in the present proceeding is to be taken as a proper basis for the establishment of rates.

While the amount of capitalization is one of several factors that may be properly considered in a question of rates, that factor alone has never been held to be controlling; and its importance depends upon the circumstances and conditions of the particular case. It is one question to determine the amount of obligations which a railroad corporation may legally assume. It may be quite a different question to determine to what extent such obligations may be loaded upon the rate-paying public.

The Commission has already approved an issue of capital stock to the amount of \$1,400,000, the proceeds of which were to be applied by the company "only toward the payment and capitalization necessary to the cost of building and equipping its railroad, and the purchase of property necessary for its operation." In view of our finding that the reasonable and proper cost incurred in the construction of the railroad amounts to \$3,300,000, the company is entitled to additional capitalization to the amount of \$1,900,000.

The application before the Commission is for mortgage bonds. Under section 15 of chapter 784 of the Acts of 1913, the Commission may not approve mortgage bonds unless the mortgage shall secure all bonds, notes and other evidences of indebtedness outstanding on equal terms. It appears from the evidence presented that the corporation has outstanding notes or other evidences of indebtedness to an amount in excess of \$1,900,000. The result is that if the parties in interest shall within a reasonable time present to the Commission evidence that the corporation is released from all liabilities, with the exception of the outstanding capital stock, in excess of \$1,900,000, as hereinbefore indicated, an order may be entered approving mortgage bonds to that amount. If the parties in interest are unable or unwilling to do this, the petition should be dismissed, without prejudice to the right of the corporation hereafter to make any other application not inconsistent with the findings and rulings indicated in this opinion.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,
EVERETT E. STONE,

DECEMBER 24, 1913.

[P. S. C. 165]

Commissioners.

Commissioner Anderson, Dissenting.

I dissent from the decision and the opinion of the majority. The opinion seems to me inconsistent with itself, irreconcilable with the controlling facts, and to involve propositions of law and of public policy unsound and fraught with great danger.

(1) In order to approve a petition like the present, to fund a floating debt, this Commission must find as a fact that the floating debt was "*properly incurred for lawful purposes*". In this case we have chiefly to do with the meaning and application of the words "*properly incurred*". Manifestly, "*properly incurred*" does not mean that the regulating commission shall assume the functions of a board of directors, and deal with the wisdom and expediency of the different items of expenditure. But, without attempting any inclusive definition, it is equally manifest that a floating debt is not "*properly incurred*" unless it is incurred in *good faith and with that reasonable prudence which the law requires of every fiduciary*. To authorize bonds to fund the floating debt of the Hampden railroad, this Commission must find, as a fact, that the floating debt was incurred in good faith by persons acting for the railroad and not for themselves or for adverse interests, and exercising a reasonably prudent judgment in authorizing the expenditures. On the indisputable facts no such finding can in this case be made. On the contrary, the floating debt now sought to be funded was incurred by a board of directors, the dominant part of whom occupied the inconsistent and irreconcilable position of contractors seeking to make an unconscionable profit at the expense of their corporation, with the result that they caused the construction of a railroad at an expense having no sensible or approximate relation to its value as a transportation agency, and the cost of which ought not to be capitalized and saddled upon the public.

I dissent utterly from the doctrine contained in the latter part of the opinion:—"It is one question to determine the obligations which the company may legally assume. *It may be quite a different question to determine to what extent such obligations may be loaded upon the rate-paying public.*" The main purpose of giving a regulating commission control over the issuance of securities is to provide a sound and just basis for rates. If an investment in a public utility has been "*properly made for lawful purposes*", the using public ought to pay a fair return upon that investment, subject, of course, to being penalized for mismanagement, for which stockholders are, in theory of law at least, responsible. If securities are

proper to be issued they are *prima facie* proper to "be loaded upon the rate-paying public".

The object of our anti-stockwatering law is, as stated by Knowlton, A.G. (1 Opinions Attorney Generals, p. 661), — "To prevent the issuing of stock and bonds not necessary for the transaction of the business for which such corporations are organized: *to the end that the public should not be required to contribute to the payment of dividends upon the stock or bonds the proceeds of which were not reasonably necessary for the business of the corporation.*"

This necessary connection between capitalization and rates enunciated in Attorney-General Knowlton's statement has been recognized in previous decisions of the railroad commissioners, — which the majority opinion now attempts to overrule, — and is strikingly illustrated by the decision in the case of the Western Massachusetts Street Railway Company (see 37 R.R. Comrs.' Rep., p. 183), where the activities of some of the same promoters as are involved in the present case were before the Commission. The Board there expressly recognized that waste and extravagance are not fit subjects of capitalization, and that if capitalized must necessarily be considered in determining rates: saying *inter alia*, — "The Board cannot agree *that as a basis upon which to establish fares and accommodations* the company ought to issue bonds in excess of the sum of \$200,000", which, as the rest of the opinion shows, was much less than the alleged cost of the property.

More and more the securities, particularly the bonds, of public utilities are sold to the investing public on the faith of their having been approved by public service commissions. Without undertaking to say that this Commission may not at some time be in duty bound to permit the issue of stocks and bonds that it knows are unsound, as the Public Service Commission for the First District of New York was in the case of the reorganization of the street railway companies of New York, (see 2 P. S. C. 1st Dist., p. 347), the opinion of the majority shows that this is very far from being such a case.

(2) Although this is a petition by the Hampden Railroad Corporation for an issue of bonds to fund its floating indebtedness, the majority opinion holds, in effect, that the new road is a "Boston and Maine enterprise"; and that the proposed capitalization (of \$3,300,000 or \$220,000 a mile on this single track railroad without terminals or rolling stock) is to be held proper and lawful because some of the executive officers of the Boston and Maine Railroad inadequately and inefficiently dealt with some of the duties which the

directors of the Hampden railroad abandoned when the president of the Hampden road became the profit-seeking contractor. But if this is a "Boston and Maine enterprise" it cannot properly be heard and determined except in connection with the pending petition for approving the lease to the Boston and Maine. Months ago the two petitions should have been consolidated, heard together and determined; and this property, however little it may be worth, put to use. The bonds proposed to be approved are nearly worthless unless guaranteed, principal and interest, by the Boston and Maine Railroad. To approve them without taking the necessary step to make them of value is worse than useless; it is perhaps to facilitate a fraud.

(3) The average cost of railroads in Massachusetts is about \$65,000 a mile, including equipment and terminals. The average cost of the Boston and Maine railroad, excluding the Fitchburg branch, is about \$72,000 a mile. The proposed capitalization, under the opinion of the majority, of this single track road, without equipment and terminals, is \$220,000 a mile. To reach that result the majority cuts off from the alleged cost of the road, as claimed by the contractor-president, over \$70,000 a mile, or as much as the average cost of other Massachusetts railroads. These figures alone condemn the result.

The Boston and Maine Railroad, found by the majority to be largely responsible for this waste (if not worse), is now demanding that shippers and passengers shall pay it an increased revenue of \$5,000,000 a year. Co-temporaneously we have the spectacle of its stock, some of which was put out under orders of the railroad commissioners fixing a price as high as \$190, receiving no dividend at all and selling in the market at about \$40; and of the stock of the New Haven railroad, which for years had a market value in excess of \$200, selling at about \$70, having passed its last dividend. Our Commission has just joined, unofficially, with Interstate Commerce Commissioner Prouty and the commissioners of other northern New England states in a recommendation that certain freight rates on the Boston and Maine railroad be raised.

But there is little encouragement for investors in the stocks of our leading New England railroads ever again to expect a dividend, if such wasteful expenditures as those for the Hampden railroad are to be held "lawful and proper". For some years it has been increasingly manifest, both within and without New England, that some of our railroads have fallen into the hands of directors who really represent neither the interests of the stockholders nor of the shipping and travelling public; that the roads are being managed,

or mismanaged, for the benefit of contractors, express companies, parlor car companies and other outside exploiting interests. The methods pursued in the promotion and construction of the Hampden railroad are typical, although on a much smaller scale, of the transactions which have wrought such dire ruin to the stockholders of the New Haven railroad. The New Haven disasters are directly traceable to wastings and spendings made in defiance of our Massachusetts law. The present case tests that law and its administration, — in its application to the rights of both investors and rate payers. If this Commission has no power to stop the capitalization of such wasteful expenditures as have been made on this Hampden road, the next legislature should amend the law. If we have the power it should be exercised. I maintain that we have the power.

(4) The salient and controlling facts are inadequately stated in the opinion of the majority; some of the most significant facts are omitted. At the outset it should be noted that, if the Hampden railroad was, as the majority finds and as Mr. Mellen's testimony indicates, originally planned simply to extend the Boston and Maine railroad from Bondsville into Springfield, the certificate of public necessity and convenience was obtained from the railroad commission by a fraud upon the law, upon the Commission, upon the Boston and Maine stockholders, and particularly upon the local public of Holyoke, Chicopee, and adjoining towns, who appeared before the railroad commission advocating the issuance of the certificate because of assurances given them that additional transportation facilities were to be furnished them. The road, as originally described in 1910, was to run from Bondsville nearly west to Chicopee, with a branch to Holyoke, thence down the Connecticut river into Springfield, fishhook fashion. It was about 25 miles in length. It appeared on paper to furnish substantial additional railroad facilities to these three thriving Connecticut River cities. The scheme was presented to the railroad commissioners and to the general public as that of an independent road backed by local capital, friendly to but not promoted by either the New Haven or the Boston and Maine. Under date of September 15, 1910, President Mellen addressed to President Gillett of the Hampden Railroad Corporation a letter, which was presented to the railroad commissioners at the hearing in order to influence them to issue the certificate of exigency, as follows:

I have examined your plans for the Hampden railroad location and believe that the connections proposed are feasible and I should be glad to have the same made when your road is constructed. There is no rea-

son why our company should not co-operate with you by making a fair arrangement for the interchange of business, as your road is going to be a much shorter one than at present by way of Northampton and our relations with the New Haven road are likely to be productive of a much larger interchange of business in the future.

Mr. Gillett testified before the Board that the main purpose of the promoters was not to create a competitor of the Boston and Albany from Springfield east; but that he and his associates would build the new road from Bondsville to Holyoke and Chicopee even if they had no right to go into Springfield at all, and whether they went into Springfield or not. But Mr. Mellen says that the real plan at that time was to connect the Massachusetts Central with Springfield, and that his instructions to Mr. Gillett from the outset were to proceed to make that connection and not to build either the Chicopee or the Holyoke branch. The certificate (42nd R.R. Comrs.' Rep., page 184) contains this statement:

The proposed road, if constructed, is intended to serve the cities of Springfield, *Holyoke and Chicopee*, and certain towns easterly thereof.

In fact, as Mr. Mellen's testimony and what the parties actually did conclusively show, the contemplated route was never intended to serve the cities of Holyoke and Chicopee.

If the fact that the railroad commissioners issued a certificate of public necessity and convenience has, either as matter of law or as matter of sound public policy, any bearing at all upon the question as to whether expenditures for subsequent construction, made under such circumstances as are here disclosed, were properly made, it is clear that in this case the certificate was obtained by deliberate misrepresentations. Concealment of the real plan, bad faith in matters of public moment, marked the enterprise in its very inception, and might perhaps be held by a court to invalidate the charter itself. (Compare *Fall River, &c. Co. vs. Old Colony &c. Co.*, 5 Allen. 221.)

The railroad commissioners never certified that the road actually built from Bondsville to Athol Junction would "serve a public need", — much less did they certify that any railroad built on a contract between the railroad and its president, and costing, by reason of the fact that its directors were acting adversely to it, four times the average cost of Massachusetts railroads, would "serve a public need."

Test the question by assuming that the scheme now described in the opinion of the majority as "against public policy" had been dis-

closed to the Commission at the time of the application for the certificate of exigency, or when they were asked to approve the issue of capital stock: is it conceivable that any Board would ever, in any fashion, have given the stamp of its approval to this scheme?

Nor does the opinion of the attorney-general have any proper application either to the question as to whether this floating debt was properly incurred or to the question whether the certificate of exigency was properly obtained. The gist of the question submitted to the attorney-general was whether the Hampden Railroad Corporation had so far diverged from the route described in the application for the certificate of exigency as to make its charter invalid. The attorney-general held, "*That the legislature has left the matter of the route in elastic form and has given to the municipal boards powers which amount to authority to amend the charter of the railroad in matters concerning the route provided only they keep within the outside limits of the route stated in the agreement of association, namely the termini in the counties, cities and towns in which the railroad is located*".

As the variation in the Springfield part of the route was by agreement with the Springfield authorities the attorney-general held that the charter was not thereby invalidated. The opinion has nothing to do with the question whether the actual location was selected in order to get more hills to cut and valleys to fill. Moreover, this opinion is carefully conditioned by the following statement:

It must, of course, be presumed in favor of the various decisions and certificates of the board of railroad commissioners that, acting as a public board, it has been fully satisfied that the incorporators, in all acts requiring the approval of the Board, have acted *in good faith*; that the rights of the public and all parties interested in the proceedings have been protected by the Board so far as the statutes permit such protection and *that the interests of the public have been served by the manner in which the requirements of the chapter preliminary to incorporation have been complied with.*

In fact, nothing was done "in good faith." As already stated, the original certificate of public necessity and convenience was obtained by gross fraud. This was followed in June, 1911, by a false certificate made by the directors, clerk and treasurer to the effect that it was "intended in good faith to locate, construct, maintain and operate the railroad upon the route fixed." (See section 23.) The route actually fixed at that time included a line to Chicopee Falls. The sworn testimony now is that there was at that time no

intention "to construct, maintain and operate" a road to Chicopee Falls.

The fair presumption is that if the promoters had not certified a falsehood in June, 1911, the corporation would never have had a charter.

No part of the responsibility for capitalizing this nearly useless railroad at \$220,000 a mile can be unloaded upon the attorney-general of the commonwealth. It must all rest upon this Commission.

But, if, as Mr. Mellen's testimony, taken in connection with all the other facts and circumstances indicates, the real purpose in 1910 was to connect the Massachusetts Central with Springfield so as to make that line a future competitor of the Boston and Albany for business between Springfield and Boston, — that purpose no longer existed after the making, in February, 1911, of the partnership agreement between the New York Central and the New Haven railroad as to the operation of the Boston and Albany railroad (see 43d R.R. Comrs.' Rep., p. 1052). Under this agreement the New Haven was to share equally with the New York Central in the profits or losses of operating the Boston and Albany. Admittedly, as a result of this agreement, an arrangement was forthwith made to run the new line from Athol Junction into Springfield over the tracks of the Boston and Albany. No reason has been stated or can be stated why, assuming that the connection of the Massachusetts Central with Springfield was for any railroad purpose desirable, the tracks of the Athol branch of the Boston and Albany should not have been used from Athol Junction nearly to Bondsville. The expenditure of a small sum of money at or near Bondsville would have made the necessary connection between the Massachusetts Central and the Athol branch; and the result would have been a line consistent, both as to alignment and as to grade, with the rest of the Massachusetts Central. The present Hampden railroad almost parallels, from Bondsville to Athol Junction, the Athol branch of the Boston and Albany. It is about two miles shorter and its alignment is therefore somewhat better. Its grade is little, if any, better; it has one long grade of 65 feet to the mile. The steepest grade on the hilly Fitchburg railroad is 60 feet to the mile.

After the agreement as to the operation of the Boston and Albany, there was no conceivably adequate business motive, from the standpoint of developing additional transportation facilities on a basis reasonably remunerative to investors in railroads, for constructing this line paralleling the Athol branch from Bondsville to Athol Junction. The Boston and Albany was not earning money enough

to pay the 8% required by the lease, and the New Haven has borne one-half of the deficit. It needed all the business it could get and had recently spent millions in improving its facilities. Mr. Mellen testifies that the Massachusetts Central was probably not earning operating expenses. The financial condition of the Boston and Maine in 1910 was, as those charged with its management ought to have known, precarious. It needed to conserve and not to waste assets. There was no legitimate motive for the expenditure of millions of dollars for this nearly, if not quite, useless paralleling line. Even if the subsequent dealing of the promoters had not involved an attempt to make unconscionable profits, the mere fact that the construction was proceeded with after the making of the contract as to the Boston and Albany would have raised a serious question as to the reasonable prudence of the expenditure.

Moreover, if this was in fact a "Boston and Maine enterprise", it should have been built by the Boston and Maine directly, obtaining the right for an extension under section 126 of the general railroad law.

But the promoters proceeded as a separate corporation, and this resulted in the selection of the location by Gillett and his associate directors, — with two at least of whom Gillett testified he had a moral if not a legal agreement to share his profits from the enterprise. Mr. Mellen took no part in the selection of the location except to examine maps. It was the engineer of the Hampden railroad, — that is, Gillett's own engineer, — who advised as to the route. This engineer testifies that he made numerous surveys and plans of various routes and reported to the organizers of the new company; but, strangely enough, all those plans and surveys, except for the route adopted, have been destroyed; so that the engineers of the Commission are not able to compare the probable cost and utility of alternative routes with the one actually selected. Now the selection of this location was a matter of vital importance. It is apparent, even to the layman's eye, that the line actually selected, ran the road unnecessarily through great hills of rock which might easily have been avoided without impairing the alignment. These disagreeable facts, — taken in connection with the disappearance of the other plans and surveys and with the amount of profit sought to be charged by President Gillett to his company for the excavation, — lead almost irresistibly to the inference that parts of the route were selected for the very purpose of making it expensive.

Except some preliminary work for surveys, nothing was expended on this enterprise until after the lease to the Boston and Maine, on

the basis of 5%, had been actually approved by the Boston and Maine stockholders. The promoters of the enterprise intended to take for themselves no avoidable risks. If Mr. Gillett's original agreement with Mr. Mellen was to "finance the road" so as to relieve the Boston and Maine, that agreement was not fulfilled. It was not until the Boston and Maine had agreed, subject to the approval of the railroad commissioners, to lease the property at 5% upon the whole cost, plus 5% for general, engineering, legal and contingent expenses, that any capital was raised for the enterprise. And even then it was President Mellen who introduced Mr. Gillett to the bankers and approved, as president of the Boston and Maine Railroad, the arrangements to get the money.

In April, 1911, President Mellen had been authorized by the directors of the Boston and Maine Railroad to negotiate a lease of the Hampden railroad, "which is to connect with the Central Massachusetts at a point near Bondsville, upon such terms and conditions as he may deem for the best interests of the company". On July 19, 1911, the general auditor of the Boston and Maine wrote to the vice-president in charge of construction a significant letter (omitted from the majority opinion) as follows:

A new railroad in which our Company is interested is to be constructed at an early date, and after its completion, will, under an agreement, be leased to our Company on a percentage sufficient to pay the interest on its bonds and dividends on its stock. The cost is to be certified by me as being correct.

May I trouble you to say as to whether the under mentioned prices are in a general way reasonable or whether you would see anything about them to need any special criticism:

Earth cut,	.	.	.	.	.	.	.	\$0.45	per cubic yard.
Rock cut,	.	.	.	.	.	.	.	1.85	per cubic yard.
Ballast,	.	.	.	.	.	.	.	.60	per cubic yard.
Overhaul, over 500 feet,	.	.	.	.	.	.	.	.00½	per cubic yard.

Mr. Gillett is the man commissioned by Mr. Mellen to handle the matter and we wish to deal fairly with him and at the same time protect the interest of our Company.

The salient point in this letter is the statement, apparently made with entire unconsciousness of its real significance, that "Mr. Gillett is the man commissioned by Mr. Mellen to handle the matter".

The general auditor was referred to the chief engineer of the

Boston and Maine, with the result that prices designated in the letter (which had been stated to the general auditor by Mr. Gillett himself) were cut to the following:

Earth cut,	.	.	.	.	.	.	.	\$0.37½.
Solid rock,	.	.	.	.	.	.	.	1.50.
Ballast,	.	.	.	.	.	.	.	.60.
Overhaul,	.	.	.	.	.	.	.	.00¾ over 1,000 feet.

The so-called contract between the Hampden railroad and its president, under the name of "Woronoco Construction Company", was executed, Mr. Gillett signing this contract for the corporation and for himself as Woronoco Construction Company. This paper, on August 4, 1911, was sent by the general auditor to President Mellen, together with a draft of the proposed lease of the Hampden railroad to the Boston and Maine Railroad. Mr. Mellen signified to the general auditor, orally, his approval of the so-called contract with Mr. Gillett. The agreement for the lease was approved by the Boston and Maine directors on September 5, 1911, and by the stockholders on October 11, 1911.

No director, except Mr. Mellen, seems to have given any attention whatever to the matter. Apparently it was approved both by the directors and by the stockholders as a purely formal matter. Presumably the directors believed, as they had a right to believe, that President Mellen took all usual and ordinary business precautions to see that the new road would cost no more than it ought. It was the day of one-man government and that one man was President Mellen.

It is entirely unfair to throw any considerable responsibility for this unbusinesslike arrangement upon the chief engineer and the general auditor of the Boston and Maine. They understood that Mr. Gillett had been "commissioned" by Mr. Mellen "to handle the matter" and that their functions were narrowly limited. But Mr. Mellen's knowledge of the situation is shown by the following extract from his testimony:

As to the Woronoco Construction Company, I have only a very hazy notion of it in my mind, I know that Mr. Gillett one day was Woronoco Construction Company, the next day Hampden Railroad Company, the next day Hampden Investment Company, and the next day he was Gillett. And I did not know exactly whom I was dealing with. He was liable to have been the Woronoco Construction Company when I was thinking he was Gillett.

But no engineer was designated by the Boston and Maine to oversee the work as it went on.

Almost immediately after approval of the agreement for the lease, Mr. Gillett proceeded to sub-let the excavation and grading to well-known firms of contractors. The prices for the sub-contracts were as follows:

Earth cut, ...	\$0.25.	
Loose rock, ...	.50.	
Solid rock, ...	1.10	to Holbrook.
Solid rock, ...	1.00	to Blakeslee.
Overhaul, ...	.00½	to Holbrook.
Overhaul, ...	.00⅔	to Blakeslee.

These prices, it will be observed, average about two-thirds of those which Gillett was undertaking to charge his corporation. But this is not all: The contract between Gillett and the sub-contractors contained an item of loose rock at 50 cents per yard. The contract between Gillett and the Hampden Railroad Corporation contained no such item. Consequently Gillett's engineer took the returns of the sub-contractors of 685,241 cubic yards of loose rock, for which they were paid at the rate of 50 cents per cubic yard, and classified 432,325 yards of it as solid rock and charged it up to the Hampden corporation at the rate of \$1.50 per cubic yard, showing Gillett a profit of \$432,325. The balance of the loose rock, 252,916 cubic yards, this engineer classified as earth, for which Gillett was to receive 37½ cents per cubic yard, an offsetting loss of \$31,614. It is significant that in this single item of loose rock, a prospective profit of over \$400,000 to Mr. Gillett out of his own corporation was figured by the only engineer in any position to guard the interests of the petitioner. The total result of the work done under the sub-contracts, as figured by Mr. Gillett's own engineer, was that Gillett paid to these sub-contractors \$1,594,686.33 and charged to his corporation for this same work \$2,686,093.96, or a profit of nearly \$1,100,000, or about 70%.

But this scheme promised other profits still, for the so-called contract between Gillett and his corporation provided that he was to furnish all the rest of the work at the actual cost plus 10%, that, even if the corporation furnished material, as it reserved the right to do, he, Gillett, the president of the company, should nevertheless have his 10% profit.

There was still another source of expected profit calculated to

supply a motive to make the road cost as much as possible. When this agreement for a lease was negotiated, a 5% guaranteed stock was worth about \$120. This would have made the original stock issue of \$1,400,000 show a profit of about \$280,000. It is true that the agreement for the lease provided that premiums from the sale of bonds and stocks should enure to the credit of the Boston and Maine, but this provision could not legally be made applicable to the *original* issue of stock, which, under the statutes, had to be paid for in full at par and issued in order to furnish a basis for the subsequent issue of bonds. In fact, the stock of the Hampden railroad was issued to the Hampden Investment Company (which was also controlled by, if indeed it was not, Gillett in another form) and was pledged to the bankers who loaned par upon it.

The plan actually devised, and carried in all its substantial particulars into effect, involved a prospective profit of nearly \$1,500,000 to Gillett and his associates for building fifteen miles of railroad without rolling stock or terminals.

There are many other facts showing the wasteful (if not worse) methods pursued, a few of which should be mentioned. When the agreement for the lease was made to the Boston and Maine, the plans and specifications called for an 18-foot way. After the contracts had been let, the chief engineer of the Boston and Maine ordered the work done for a 22-foot way, — still later for a 32-foot way; making it practically wide enough for a double track. This widening order increased the cost from half a million to a million dollars. President Mellen testified that this order was given by the chief engineer without authority and that he, Mellen, would have stopped this extra and unnecessary work if he had known of it in season. The very fact that he makes this claim indicates the loose and unbusinesslike character of the whole proceeding. But the fair inference is that the chief engineer acted in good faith and on what he believed were explicit instructions from his chief. This order for widening the way, after the contracts had been let, decreased the unit cost to the contractors, but no attempt was made to get any offsetting change by way of lower prices. The result is that this little piece of railroad from Bondsville to Athol Junction is, much of the way, built for a second track which will never be laid, or if laid will be of little use until many millions of dollars have been spent upon the Massachusetts Central and it is made a real competitor of the Boston and Albany. This prospect is too remote for sober and responsible business men to give it a second thought.

The right of way on this railroad is returned as costing about \$10,000 a mile. The method pursued was to buy farms of 965 acres in all, using about 328 acres and leaving about 637 acres to be sold and the proceeds to be termed as "salvage," if and when it can be sold. If the statutes of this commonwealth contemplate that the promoters of a railroad may buy a line of farms instead of purchasing or taking a right of way not exceeding five rods in width (see section 71), those statutes do not contemplate that the expenditures for such a real estate speculation shall be capitalized as the basis of railroad rates.

(5) In law, if not in railroad finance, it still "takes two to make a bargain." The law of Massachusetts does not permit a contractor to form a railroad corporation; to select hills of rock through which to drive the railroad; to contract with himself to build the road; to sub-let the larger part of the work on terms showing him a profit of 70%; and then, through a lease to an existing railroad, to get securities to sell to the investing public who, if they buy, will buy mainly upon the faith of those securities being approved by a public service commission sitting to administer the public service code of this commonwealth.

Much is said in the opinion of the majority about the acts of the "Boston and Maine Railroad." It is necessary to distinguish carefully what certain individuals officially connected with the Boston and Maine Railroad may or may not have done and action on the part of the stockholders and directors which does formally bind that corporation. Neither the president, general auditor nor chief engineer of the Boston and Maine Railroad had any general authority, by virtue of their offices, to enter into any arrangement as to building or leasing another railroad. Nothing could be more unsafe as a matter of public policy or more unfair to the stockholders and directors of the Boston and Maine Railroad than to seek to hold them responsible for ultra vires activities of certain of their officials. Such responsibility as the Boston and Maine Railroad may have is to be determined by the legal effect of the agreement for the lease. This agreement is to the effect that the Hampden railroad shall forthwith construct its road from Bondsville so as to connect with the Chicopee Falls branch of the Boston and Maine railroad at Chicopee, and "*when requested by the Boston and Maine Railroad also to connect with the Athol branch of the Boston and Albany in Springfield, the road to be a single track, first-class railroad, laid out in a reasonable manner for subsequent double tracking,*" the cost to be certified by the general auditor of the Boston and Maine

Railroad, and to be the basis of the stocks and bonds to be issued and assumed by the Boston and Maine, as shown in the lease.

Now this agreement for the lease bound the Boston and Maine Railroad, subject to the approval of the railroad commissioners, to take a lease of a road to be built by the Hampden Company from Bondsville to the Chicopee Falls branch of the Boston and Maine railroad, — *a mere connection between two existing branches of the Boston and Maine*. It did *not* bind the Boston and Maine to take any lease of the road actually built from Bondsville to Athol Junction until the Boston and Maine Railroad should *request* the building of that road. The Boston and Maine Railroad has never “requested”, so far as we know, the building of the road actually built. The Boston and Maine Railroad cannot request the building of another railroad except by a vote of its directors and perhaps of its stockholders. Mr. Mellen, as president of the Boston and Maine Railroad, could not, as it seems to me, have any implied authority to make such a request. Why Mr. Mellen should induce his board of directors to authorize a lease of a railroad to connect two existing branches of the Boston and Maine railroad when, as he testifies, his actual arrangement with Mr. Gillett was at that time to build the railroad from Bondsville to Athol Junction, remains unexplained. At any rate, as the Boston and Maine Railroad never asked to have built the road that has been built, it is not, properly speaking, a “Boston and Maine enterprise” at all. Nor is there a scintilla of evidence that any director or stockholder of the Boston and Maine Railroad had any conception that the Hampden railroad was not being promoted and built by a board of directors carefully guarding its every interest. The scheme now disclosed was, so far as we know, absolutely unknown to every director and stockholder except Mr. Mellen. It is hard to treat seriously the following statement in the opinion of the majority:

Indeed, the good faith of the project is almost conclusively established by the fact that it received the approval of the directors and stockholders of the Boston and Maine Railroad, as well as of the members of the railroad commission, without a dissenting voice. It will hardly be charged that the entire body of stockholders of the Boston and Maine Railroad were engaged in a conspiracy to defraud themselves and that the board of railroad commissioners was a party to the conspiracy.

Of course, the immediate victims of this scheme of fraud were expected to be the stockholders of the Boston and Maine Railroad.

The only possible way for them to recoup themselves was to unload the results of this fraud and waste upon the rate-payers.

(6) The majority opinion is inconsistent with itself and with the law in its final conclusion as to the basis of the proposed capitalization. It contains a long argument in favor of the good faith of Gillett and his co-promoters in making the alleged contract between the Hampden Company and Gillett under the name of the Woronoco Construction Company. Much time is spent in demonstrating that the intervention of President Mellen and the chief engineer and general auditor of the Boston and Maine Railroad relieved that so-called contract of any taint of fraud. That contract was either valid or invalid. If it was valid, Gillett was entitled to his profit, — approximately \$1,000,000. If it was, as the majority themselves find, “against public policy”, it was fraudulent.

It is immaterial whether you call it “constructive fraud”, or “actual fraud”. What the majority say amounts to finding that these trustees were abusing their trust estate for their own benefit.

It is elementary law that in such cases expenditures can be allowed only so far as they can be shown to be beneficial to the estate. This result follows as matter of law. The majority refuse to apply the law to their own findings. The case is governed by the doctrines laid down in

Old Dominion Copper Company v. Bigelow, 203 Mass. 159.

Hayward v. Leeson, 176 Mass. 310.

Parker v. Nickerson, 112 Mass. 195.

Parker v. Nickerson, 137 Mass. 487.

Hill v. Hall, 191 Mass. 253.

What this road would have cost if it had been built by a real board of directors, nobody knows. It was not built by the Boston and Maine. The Boston and Maine directors never had any chance to pass upon the question of selecting the route. Neither the stockholders nor the creditors of the Boston and Maine had any chance to be heard on the question as to whether the certificate of exigency should issue for building this as an extension. No Boston and Maine engineer supervised the work as it went on. And yet the majority say that they propose to capitalize the result on the theory that the Boston and Maine did build the road. This is wrong as matter of law.

Nor is this finding warranted as a matter of fact; for all the so-called valuations are compilations based mainly upon the vouchers

of the Woronoco Construction Company. No engineer has undertaken to say what the Boston and Maine Railroad would have spent for connecting Bondsville with Athol Junction if it had done the work directly. While the actual expenditures on the property are in much doubt, I am not personally satisfied that the proposed capitalization of \$3,300,000 does not include substantial profits to the promoters. What the majority have really done is, not to capitalize this property on the basis of what it would have cost the Boston and Maine Railroad if that corporation had built it, but to allow the actual cost to Gillett and his co-promoters, eliminating most, if not all, of the profits they sought to make. This is a most dangerous ruling and finding. It amounts to saying to this class of schemers — "The only penalty that shall be visited upon you if caught is the loss of your profits; your expenditures are safe. You *may* make; at any rate, you shall not lose."

Such a ruling really puts a premium on fraud. The main object of our law is that railroads shall be capitalized only for their value. When money is spent by directors acting in good faith and for their corporation, the presumption is that "cost" and "value" are synonymous. But when, as in this case, the money was spent for the benefit of the directors and not for the benefit of the corporation, there is no presumption that the cost bears any relation to the value. If this railroad as a railroad is worth \$3,300,000, it ought to be capitalized for that amount. If it is not worth that, there is no reason why either the rate-paying public or the Boston and Maine stockholders should be called upon to pay, directly or indirectly, any more than its real value. No engineer has undertaken to determine the value of the property as a transportation agency. There is no evidence before the Commission, nor has the Commission otherwise any knowledge adequate to determine, even roughly, the value of this property as a railroad.

References in the majority opinion to "valuations" by the various engineers are not to be construed as referring to valuations for railroad purposes; all that the engineers whose reports are referred to did, was to compute, partly from the vouchers and partly from an examination of the physical property, *the cost of construction of the road built as it was built*.

Neither Mr. Hayes nor any other engineer has undertaken to say that, if the Boston and Maine had built this road directly, it would either have built it on the location actually selected or have spent for land, excavation, filling and the other main items of expense anything like the sums which were actually expended.

The result is, as I think, that the present petition should be dismissed without prejudice to the right of the corporation hereafter to apply for any additional capitalization, above the \$1,400,000 of stock already issued, the amount to be determined on the basis of the actual value of its property for railroad purposes.

GEORGE W. ANDERSON.

DECEMBER 24, 1913. [P. S. C. 165]

Petition of the Holyoke Street Railway Company for approval of issue of additional capital stock.

It appearing, after notice and hearing and further investigation, that the proposed issue of capital stock is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the issue by the Holyoke Street Railway Company, at the price of one hundred fifteen dollars (\$115) per share, as fixed by its stockholders, of additional shares of capital stock not exceeding four thousand seven hundred sixty-five (4,765) in number, amounting at par value to four hundred seventy-six thousand five hundred dollars (\$476,500) as an issue of stock reasonably necessary and of the amount required for the following purposes:

1. The proceeds of shares not exceeding one thousand eight hundred forty-four (1,844) in number, amounting to one hundred eighty-four thousand four hundred dollars (\$184,400), are to be applied exclusively for the payment of floating indebtedness properly incurred in the construction and equipment of its railway and in the purchase of property necessary for its operation, described in the schedule on file with the petition.

2. The proceeds of shares not exceeding one thousand three hundred four (1,304) in number, amounting at par value to one hundred thirty thousand four hundred dollars (\$130,400) are to be applied toward the payment of the necessary cost of proposed new car barn, as described in schedule on file with the petition.

3. The proceeds of shares not exceeding one thousand three hundred four (1,304) in number, amounting at par value to one hundred thirty thousand four hundred dollars (\$130,400) are to be applied toward the payment of the necessary cost of proposed addition to power equipment.

4. The proceeds of shares not exceeding three hundred thirteen (313) in number, amounting at par value to thirty-one thousand

three hundred dollars (\$31,300) are to be applied toward the payment of the necessary cost of proposed new equipment as described in the schedule on file with the petition.

Any excess in the proceeds of these shares over the amounts to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest:
JUNE 24, 1913. [R. R. C. 9255]

CHARLES E. MANN,
Clerk.

Petition of the Massachusetts Northeastern Street Railway Company for approval of an issue of mortgage bonds.

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for lawful purposes and is consistent with the public interest, — it is

Ordered, That the approval of the Commission be hereby given to an issue by the Massachusetts Northeastern Street Railway Company of mortgage bonds to an amount not exceeding at par value one million dollars (\$1,000,000), payable twenty years from date thereof and bearing interest at the rate of five per cent (5%) per annum, as an issue of bonds reasonably necessary and of the amount required for the following purposes:

1. The proceeds of bonds amounting at par value to eight hundred seventy thousand dollars (\$870,000) are to be applied exclusively to the payment and refunding of issues of bonds, assumed by the petitioner by reason of the purchase of the railways, property and franchises of certain street railway companies, amounting in the aggregate to eight hundred seventy thousand dollars (\$870,000), which issues of bonds are more particularly described as follows:

Massachusetts Northeastern St. Ry. Co. (formerly Haverhill and Southern New Hampshire St. Ry. Co.), . . .	\$80,000 00
Haverhill and Amesbury St. Ry. Co., ...	290,000 00
Citizens Electric St. Ry. Co., ...	230,000 00
Lawrence and Methuen St. Ry. Co., ...	125,000 00
Amesbury and Hampton St. Ry. Co., ...	100,000 00
Haverhill and Plaistow St. Ry. Co., ...	30,000 00
Lowell and Pelham St. Ry. Co., ...	15,000 00

\$870,000 00

2. The proceeds of bonds amounting at par value to one hundred thirty thousand dollars (\$130,000) are to be applied exclusively to the payment of floating indebtedness incurred by the Haverhill and Amesbury Street Railway Company to the amount of ninety thousand dollars (\$90,000), by the Lawrence and Methuen Street Railway Company to the amount of thirty-five thousand dollars (\$35,000) and by the Haverhill and Southern New Hampshire Street Railway Company to the amount of five thousand dollars (\$5,000), and assumed by the petitioner by reason of the purchase of the railways, property and franchises of said companies, for the purposes for which issues of bonds by said street railway companies were approved by the board of railroad commissioners by orders dated February 3, 1912, but which bonds were not issued.

The orders of the board of railroad commissioners dated February 3, 1912, approving issues of bonds by the Lawrence and Methuen Street Railway Company and by the Haverhill and Southern New Hampshire Street Railway Company to the amount of thirty-five thousand dollars (\$35,000) and five thousand dollars (\$5,000), respectively, for the payment of floating indebtedness, and so much of the order of the board of railroad commissioners dated February 3, 1912, as approved an issue of bonds by the Haverhill and Amesbury Street Railway Company to the amount of ninety thousand dollars (\$90,000) for the payment of floating indebtedness, are hereby revoked, no bonds having been issued thereunder for said purposes.

Any excess in the proceeds of these bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Commission shall hereafter approve.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 3, 1913. [P. S. C. 142] Secretary.

Petition of the Massachusetts Northeastern Street Railway Company for approval of an issue of additional capital stock.

It appearing, after notice and hearing and further investigation, that the proposed issue of common and preferred capital stock is for lawful purposes and is consistent with the public interest,— it is

Ordered, That the approval of the Commission be hereby given to the issue by the Massachusetts Northeastern Street Railway

Company, at the price of not less than one hundred dollars (\$100) per share, as fixed by its stockholders, of additional shares of common stock not exceeding four hundred fifty (450) in number, amounting at par value to forty-five thousand dollars (\$45,000), and of six thousand six hundred fifty (6,650) shares of six per cent cumulative preferred capital stock, at the price of not less than one hundred dollars (\$100) per share, amounting at par value to six hundred sixty-five thousand dollars (\$665,000), which preferred stock shall be designated preferred stock and shall be entitled to the preferences and rights and be subject to the restrictions and limitations which have been fixed by a vote of the stockholders of said company, as set out in a copy of said vote referred to in and annexed to the petition of the company dated September 16, 1913, the certificates of said preferred stock to be issued in the form described in said vote, as an issue of stock reasonably necessary and of the amount required for the following purposes:

1. Four thousand one hundred fifty (4,150) shares of preferred stock, amounting at par value to four hundred fifteen thousand dollars (\$415,000), are to be issued in exchange, par for par, for mortgage bonds of the following companies, in accordance with the provisions of section 13, chapter 724, Acts of 1912, said bonds, upon exchange, to be cancelled:

Hudson, Pelham and Salem St. Ry. Co., ...	\$200,000
Haverhill, Plaistow and Newton St. Ry. Co., ...	145,000
Lowell and Pelham St. Ry. Co., ...	25,000
Seabrook and Hampton Beach St. Ry. Co., ...	45,000
	\$415,000

2. The proceeds of one thousand five hundred (1,500) shares of preferred stock, amounting at par value to one hundred fifty thousand dollars (\$150,000), to be applied exclusively to the acquiring of park property known as Canobie Lake park, located at Salem, New Hampshire; the proceeds of seven hundred fifty (750) shares of preferred stock, amounting at par value to seventy-five thousand dollars (\$75,000), to be applied exclusively to the purchase of the bridge across the Hampton river, at Hampton, New Hampshire, now the property of the Granite State Land Company, together with its approaches and the property appurtenant thereto; the proceeds of two hundred fifty (250) shares of preferred stock, amounting at par value to twenty-five thousand dollars (\$25,000), and the proceeds of four hundred fifty (450) shares of common stock,

amounting at par value to forty-five thousand dollars (\$45,000), a total of seventy thousand dollars (\$70,000) to be applied toward the payments of floating indebtedness properly incurred for additions and betterments as shown in schedule on file with the petition.

Any excess in the proceeds of these shares over the amounts to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Commission shall hereafter approve.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 141] *Secretary.*

Petition of the New York, New Haven and Hartford Railroad Company for approval of an issue of convertible debentures amounting to \$67,552,000.

EDWARD D. ROBBINS, General Counsel
CHARLES F. CHOATE, Jr.
FRANK A. FARNHAM
H. LARUE BROWN for Public Service Commission.

} for petitioner.

JAMES F. JACKSON
LEWIS SPERRY
ANDREW F. GATES

} for stockholders of the company.

CHARLES S. ENSIGN for himself and others.

DUDLEY P. BAILEY for himself.

EDWARD F. COLE for himself.

ROBERT L. WARNER for holders of three and one-half per cent convertible bonds.

ELIOT WADSWORTH in behalf of stockholders.

GEORGE VON L. MEYER
BRADLEY W. PALMER

} for Shareholders' Committee.

This is a petition by the New York, New Haven and Hartford Railroad Company for the approval of an issue of convertible debentures to the aggregate amount of sixty-seven million, five hundred and fifty-two thousand dollars (\$67,552,000.00) for the purpose of funding its floating debt amounting to forty million, twenty-three thousand, seven hundred and fifty dollars (\$40,023,750.00); for the payment of a part of the funded debt of said company to the amount of six million dollars (\$6,000,000.00); and of providing money to

be used toward paying for new equipment, and for additions to, and improvements in, the property of the petitioner.

After a careful investigation of the finances of the company, and upon the advice of the experts of the Commission, we find that said company's floating debt represents capital expenditures of the company, properly incurred for lawful purposes, to the amount of forty million, twenty-three thousand, seven hundred and fifty dollars (\$40,023,750.00), and that the refunding of a part of the funded debt of said company to the amount of six million dollars (\$6,000,000.00), and the providing of money to be used toward paying for new equipment, and for additions to and improvements in the property of the petitioner, to the amount of twenty-one million, four hundred and twenty-eight thousand, two hundred and fifty dollars (\$21,428,250.00) are reasonable and proper for lawful purposes.

This finding establishes the right of the company to issue some form of securities to the amount of sixty-seven million, five hundred and fifty-two thousand dollars (\$67,552,000.00). The question then arises as to whether the Commission may lawfully and properly approve an issue of securities of the kind, and embodying the terms and conditions, set forth in the application.

As the company has applied for an issue of evidences of indebtedness it is necessary, in the first place, to determine whether it has a legal right to issue any form of evidences of indebtedness to the amount of sixty-seven million, five hundred and fifty-two thousand dollars (\$67,552,000.00) within the provisions of section 15 of chapter 784 of the Acts of 1913, which provides in effect that the aggregate amount of the evidences of indebtedness of a railroad corporation shall not exceed twice the amount of its paid in capital stock.

The claim has been made that the capital stock of the company is limited to the amount validated by chapter 652 of the Acts of 1910, and that for purposes of the present case all stock issued by the company since the passage of that act must be disregarded. With this view of the law we do not find ourselves in accord. In our judgment the capital stock of the company actually paid in, within the meaning of said section, is sufficient in amount to warrant the proposed issue of bonds.

The next question to be considered is whether the Commission can lawfully and properly approve debentures containing a provision for future conversion into stock at par. While securities of railroad companies in this form have frequently been approved by the public service commissions of other states, and are a recognized and popular

form of investment, the statutes of this Commonwealth contain no specific authority for, or prohibition of, an issue of convertible bonds or debentures. It is impossible, therefore, until the law is made more specific, or the courts have spoken, for the Commission to pass authoritatively upon this important legal question. The petition before us, however, compels us to answer this question according to our best judgment.

After a careful consideration of all aspects of the legal issue involved, we are of opinion that under the broad powers vested in the Commission by the law under which it was created, the Commission has the authority to approve an issue of evidences of indebtedness in this form and also to approve in advance an issue of stock at a stated price sufficient in amount to provide for the conversion feature in the bonds, if, in its discretion, it believes that such approval, upon the facts of the particular case before it, is consistent with the public interest. Until the law is more clearly defined, the discretionary power of the Commission to approve securities of this kind should be exercised with extreme caution and only where it seems to be demanded by important considerations of the public interest.

Having in mind all considerations pertinent to the case before us, we are prepared to approve an issue of convertible debentures for the amount set forth in the petition and to authorize an issue of an equivalent amount of stock at par to be issued in exchange for such debentures in accordance with the terms thereof.

While it has been contended by counsel that the authority of the Commission to pass upon the proposed issue is limited to the character and amount of the securities proposed to be issued, we are of opinion that by law and precedent the Commission, in determining the propriety of an issue of evidences of indebtedness, may take into consideration the price at which it is proposed to sell them, the rate of interest, and the other terms and conditions thereof.

In this case it is proposed that the debentures shall bear interest at the rate of six per cent per annum, and be sold at par. In view of general market conditions, the amount of the proposed issue and the financial credit of the company, we are satisfied from the evidence adduced at the hearing, and our own investigation and inquiry, that the rate of interest proposed is necessary and proper to secure the marketing of the entire issue at par.

In this connection it may be proper to call attention to the contract made by the company for the payment of certain charges and expenses amounting to over one million, six hundred and ninety

thousand dollars (\$1,690,000.00) for the underwriting of this issue. While this transaction is not directly involved in the present case, as the company has not requested the Commission to capitalize these charges, but proposes to defray the same out of earnings, or in some other way, we believe it is our duty to express the view that an arrangement of this kind entered into between the company and one of its own directors is not in accord with ethical business standards or sound public policy.

We have called attention to some of the more important problems in this case and our conclusions in regard thereto. So far as questions of law are involved, the Commission has no desire to attempt to arrogate to itself the functions of a court by including in this order an elaborate opinion upon the many perplexing legal questions which we have been obliged to decide in this case. We believe that it is the function of the Commission to apply the law as we understand it, and that it is the function of the courts to interpret the law upon appeal from any ruling or order of the Commission if the legality of the same is called in question.

While no exigency of the company would justify the Commission in approving the petition before us unless we are satisfied that we could properly do so under the law, we believe that in so far as the case involves the exercise of discretion on the part of the Commission, we should refuse to allow narrow and technical considerations to divert us from the course which is indicated by the practical business aspect of the problem before us, and by sound considerations of public policy.

In this connection it may be proper to point out that adverse action upon the present petition would leave the company to the hazard of negotiating, within the next few weeks, short time notes to the amount of fifty or sixty millions of dollars in order to provide for the payment at maturity of present outstanding obligations, and to finance additions to, and improvements in, the property of the company which are urgently demanded in the interest of public convenience and safety. Any possibility that the company, owing to general financial conditions then prevailing, or for any other reason, might find itself unable upon such short notice to realize the large amount of cash capital necessary for these purposes, is one that cannot be viewed without grave concern.

In any event such short time financing could probably be obtained only at excessive cost to the company, and would afford only temporary relief. The placing of the company's finances upon a stable basis is, in our judgment, an essential prerequisite to the improve-

ments in transportation conditions which are so urgently demanded by the public, and for which we are disposed to look hopefully towards the new management of the company if it is given a reasonable opportunity to work out a constructive plan for the rehabilitation of the railroad properties.

Our views in regard to the broad aspect of public policy applicable to this case cannot be better stated than in the language of the Interstate Commerce Commission in its recent report on the New England investigation :

What is needed first of all to improve the railroad situation in New England is rest and an opportunity for constructive work. . . . No railroad management can succeed without the support of the public which it serves. . . . But upon what terms is peace to be secured? In the past the New Haven Company, which has now become the dominant factor and which is mainly to be considered, has proceeded in open violation of some laws and in disregard of the spirit, if not the letter, of others. . . . Any betterment of railroad conditions in New England must begin with the assurance that the New Haven management will act not only prudently but, above all, within the letter and spirit of the law.

The sins and shortcomings of the company in the past have brought about their own retribution. The company has received a stern admonition that it cannot proceed in defiance of law and public policy without the risk of disaster. We believe that this lesson will be heeded and that further recrimination upon the conduct of the company in the past can serve no useful purpose but, on the contrary, is likely to increase the losses, already sufficiently heavy, sustained by innocent stockholders, and to impair still further the transportation facilities so vital to the business prosperity of the state.

The fact that this company, in the petition now before us, has for the first time submitted itself to the adjudication of a Massachusetts tribunal, in so far as relates to its capitalization and general financial affairs, may perhaps be taken as a happy augury for a better era in which the company and the public will work together in friendly co-operation under the law in order to bring about the improvements so urgently needed in the railroad facilities of the commonwealth.

Upon the petition before us the Commission has adopted the following order :

Order.

The New York, New Haven and Hartford Railroad Company, a railroad corporation which is incorporated under the laws of one or more other states as well as under the laws of this Commonwealth, having applied to this Commission in writing, as on file, for its approval of a proposed issue of evidences of indebtedness to be payable twenty years after date and to bear interest at the rate of six per cent, per annum, which are to be convertible at the option of the holder into shares of said company's capital stock at par at any time five years after date and not later than fifteen years after their date, to the aggregate principal amount of sixty-seven million five hundred and fifty-two thousand dollars (\$67,552,000), as being a reasonable and proper amount thereof to be issued for the purpose of funding said company's floating debt properly incurred for lawful purposes, and for certain other purposes set forth in said application as being lawful purposes;

After a public hearing upon due notice and further investigation by this Commission, it appearing that the proposed issue of evidences of indebtedness is not inconsistent with the public interest, and it being determined by this Commission that said aggregate principal amount of sixty-seven million five hundred and fifty-two thousand dollars is an amount of such evidences of indebtedness reasonable and proper to be issued by said company for the purpose of funding its floating debt amounting to forty million, twenty-three thousand seven hundred and fifty dollars (\$40,023,750.00), (which this Commission finds to have been properly incurred for lawful purposes, to wit, to provide funds toward meeting lawful indebtedness and expenditures for additions to and improvements of the property of said company, as set forth in Schedule D filed by the said company in support of said application) and for the further lawful purposes set forth in paragraphs 8, 9 and 11 of said application as finally amended, to wit: Of providing for the payment of a part of the funded debt of said company to the amount of six million dollars (\$6,000,000.00); of providing money to be used toward paying for new equipment; and of providing money to be used toward paying for additions to and improvements of this property: it is

Ordered, That the approval of the commission be hereby given to the issue by the New York, New Haven and Hartford Railroad Company of said evidences of indebtedness to the aggregate principal amount of sixty-seven million five hundred fifty-two thousand dollars (\$67,552,000.00) the proceeds of such issue of evidences of indebtedness to be applied to particular uses hereby specified as follows:

1. To fund the floating debt of said company, a detailed statement of which is set forth in Schedule A, filed with said application;
2. To pay when due that part of the company's funded debt set forth in Schedule B, filed with said application;

3. To such particular uses as this Commission shall by some subsequent order specify.

And said The New York, New Haven and Hartford Railroad Company having also further applied to this Commission in writing, as on file, for its approval of a proposed issue of shares of its capital stock at par to the amount of 675,520 shares, as being a reasonable and proper amount thereof to be issued for the purpose of paying said evidences of indebtedness by means of the conversion thereof into shares of such capital stock at par;

It appearing, after full investigation, that the price at which said shares of capital stock are proposed to be issued is not so low as to be inconsistent with the public interest, and it being determined by this Commission that said amount of 675,520 shares of capital stock is an amount of such shares reasonable and proper to be issued by said company for the purpose of paying said evidences of indebtedness by means of the conversion thereof into such shares of the capital stock at par; it is further

Ordered, That the approval of the Commission be hereby given to the issue by The New York, New Haven and Hartford Railroad Company of its shares of capital stock to the aggregate amount of 675,520 shares, in payment of said evidences of indebtedness by means of the conversion thereof into such shares of capital stock at par.

FREDERICK J. MACLEOD,
EVERETT E. STONE,
CLINTON WHITE,
GEORGE W. BISHOP,

OCTOBER 14, 1913.

[P. S. C. 99]

Commissioners.

Commissioner Anderson, Dissenting.

I am unable to convince myself that the order voted by the majority of the Commission is not, on at least three grounds, illegal and void. If it is illegal, dire confusion, great injury to the corporation and much loss to innocent investors will be the probable result. Apart from its illegality, the order seems to me inconsistent with the public interest in matters of vital and far-reaching importance.

(1) This Commission is as much bound by the law as is a court. The Legislature never contemplated vesting this Commission with any such arbitrary, unguided, personal power as the argument of counsel, adopted by necessary implication by the majority, involves. It is a creature of the law set up by the Legislature. The courts of this country have not been slow to set aside orders of such commis-

sions when they exceeded their legal powers. Nor have such capitalistic interests as are urging this application hesitated to claim the benefit of all the legal restrictions imposed upon such commissions. *Fall River Gas Works vs. Gas & Elec. Lt. Com.*, 214 Mass.; *People vs. Stevens*, 197 N. Y. 1; *People vs. Stevens*, 203 N. Y. 7; *Interstate Commerce Comm. vs. L. & N. R.R.*, 227 U. S. 88. In this course they are quite right. There is no sound progress that is not based on regard for law and order; despotic and arbitrary power is always abused sooner or later. The discretionary powers of this Commission ought not to be extended by construction, particularly in favor of a corporation and against the public interest and the rights of the great body of small stockholders, who, as their sad experience for the last decade shows, are helpless unless protected by law fearlessly enforced by such commissions as this. To strain our legal powers in order to facilitate another "director-banker melon-cutting" is a proceeding against which I must emphatically protest. The deplorable condition of this railroad at the present time is due to persistent violations of the wholesome provisions of our Massachusetts laws. The enormous losses already suffered by investors would never have occurred had the law of Massachusetts been observed. It is high time that Massachusetts laws be now enforced against this corporation, as they have been against other corporations.

(2) The company has no sufficient amount of outstanding capital stock, legally paid in under Massachusetts law, to authorize the proposed issue, under section 15 of chapter 784 of the Acts of 1913, which authorizes bonds, etc., to double the amount of the capital stock actually paid in, including premiums paid in under our anti-stockwatering law. The bonds, coupon notes and other evidences of indebtedness of the corporation will, if this issue is allowed, as the company states, be about \$269,000,000. I do not now discuss the question whether any of the so-called "contingent liabilities", amounting to some \$70,000,000, are "evidences of indebtedness" within the meaning of this section. In order to bring the company within the scope of section 15, *supra*, it is admittedly necessary to count a large part of its capital stock issued by the company since the Validation Act, which took effect as of June 30, 1910. The effect of the Validation Act was to make legal in Massachusetts \$104,000,000 (round figures) of the capital stock of the company. It now has outstanding over \$157,000,000. No part of this additional issue of about \$53,000,000 has ever been authorized either by the Legislature or the railroad commissioners of Massachusetts.

Its legal status is precisely the same as was that of the \$104,000,000 before it was given validity by the Validation Act. The argument that this Commission should now recognize that stock as valid under our law, because of the Connecticut charter of the company, is but a repetition of the argument urged by the company upon the Supreme Judicial Court in the case of *Attorney-General vs. New York, New Haven & Hartford*, 198 Mass. 413. It was emphatically negatived by that decision, in May, 1908. That decision is binding upon us. The attorney-general, two successive legislatures — and finally the company itself by its petition to the legislature asking for an enactment of the Validation legislation — have accepted that decision as settling the invalidity of stock issued precisely as this \$53,000,000 has been issued. The order of the majority amounts to a finding and ruling that the old claim of the company that it could issue any amount of stock that it chose under its Connecticut charter and was not subject to the restrictions of the Massachusetts charter, was sound. This Commission is now practically overruling (or attempting to overrule) the Supreme Judicial Court of the Commonwealth, the attorney-general and two legislatures, not to mention the Joint Commission and the Validation Commission. I decline to be a party to the attempt. It is for the legislature, not for this Commission, to validate this stock if it ought to be validated. We cannot legally constitute ourselves a new "Validation Commission."

The majority opinion makes no attempt to explain the ground of the ruling that stock issued by the company since the Validation Act may be considered as a basis for debentures to be issued under section 15 of the Washburn Act. Such silence may be good strategy, but is it consistent with the duty imposed upon the Commission by the statutory mandate, "The decision shall be in writing and *shall assign the reasons therefor*" (section 16)? This is a vital and important matter. Upon what ground does the ruling go? None can be ascertained from the opinion.

The only arguable ground suggested in discussion is that the proceeds of this stock have been used outside the commonwealth and that therefore the approval of the issue was not required under section 65 of part II, chapter 463, Acts of 1906. But this is nothing but the old claim made by the company for years and ineffectually urged upon the full court in the case in 198 Massachusetts. It is quite true that stock issued by the New Haven road, for illustration to pay for a station at New Haven, would not require the approval of the railroad commissioners of Massachusetts; but that is because, in the language of the statute, expenditures of this sort are

"authorized by the law of this Commonwealth". When, as is the fact in this case, a railroad company issues large quantities of stock and applies the proceeds for all sorts of purposes that are not "authorized by the law of this Commonwealth", such stock issue is void under Massachusetts law. (Compare Attorney-General *vs.* Massachusetts Pipe Line Co. 179 Mass. 15.) Besides, the proceeds of the stock, and of moneys borrowed and of securities sold all went into a common fund in the treasury, so that it is impossible to show that the proceeds of any particular block of stock were applied to any particular out-of-the-state railroad improvement.

(3) Nor has this Commission any legal power to authorize the issue of debentures convertible into stock at par for a period of ten years beginning five years hence. Necessarily such issue involves a present approval of an issue of stock at par for this same ten-year period and such issue has been voted by the stockholders.

This again is an attempt to repeal, by fiat of this Commission, the anti-stockwatering code of this commonwealth, put upon the statute books by the legislation of 1894 after long discussion. See for a historical account of it, Fall River Gas Works *vs.* Gas and Electric Light Commission, 214 Mass.; compare Governor Russell's message vetoing the Connecticut River Railroad stock issue, Acts of 1892, page 627.

Section 16 of the Washburn Act is, so far as this question is concerned, but declaratory of pre-existing law. It adopts, in terms, the language of the 1908 (chapter 636) amendment to the anti-stockwatering law. The statute of 1908 changed the law so that the initial price of a new stock issue should be fixed by the stockholders and not by the commissioners. This amendment was construed by the railroad commissioners in September, 1908, on the petition of the Fitchburg and Leominster Street Railway Company, see Fortieth Annual Report of the Railroad Commissioners, pages 153 to 155. In that case the predecessor of this Commission ruled as follows:

The phrase 'so low as to be inconsistent with the public interest', undoubtedly difficult of exact definition, must, in connection with the legislative act of 1908, be taken to mean in any specific case *an issue price materially lower than a price which would assure a ready market for the issue.*

This is but saying that the consideration controlling the determination of what is in the public interest is the market price. Five legislatures have met since that construction was given the act, and have made no change in the law.

Clearly, "market price" cannot be determined except for a time reasonably approximate to the determination. To undertake to determine the market price of New Haven stock for a decade beginning five years hence is, as everyone knows and as the company's witnesses testified, but to "make a guess". The law does not contemplate that this Commission shall "guess" what the market price of the stocks of the corporations under its jurisdiction will be ten or fifteen years hence. Discretion involves judgment and judgment must be based on facts. The market price of New Haven stock in 1905 was as high as \$185. If the management should reform itself it may be as high as that eight years hence. If this order may be made, every other corporation subject to the jurisdiction of this Commission or of the Gas and Electric Light Commissioners may forthwith apply to have the price of their anticipated stock issues, for a period of fifteen years (and if for fifteen years, fifty years) fixed; and these commissions have power to fix such price for any period in the future. It is the supremest arrogance for this Commission to undertake thus to repeal the anti-stockwatering law of the commonwealth.

(4) There is another legal obstacle, technical, and probably avoidable, but a bar to the petition on the record now before the Commission. The New Haven stockholders voted that the new stock issue should be offered not only to holders of outstanding stock but to holders of outstanding convertible debentures. This cannot be done under statutes 1906, chapter 463, part II, section 69, which requires that new stock issues shall be offered proportionately to stockholders. If this were the only obstacle I should assume that an amending vote could easily be passed.

(5) The New Haven Company applies for six per cent convertible debentures to fund a floating debt of about \$40,000,000, a funded debt of \$6,000,000, and to provide about \$21,000,000 of funds for new equipment and other future capital additions. To give this Commission jurisdiction to fund the floating debt we must find, as a fact, that this debt was "properly incurred for lawful purposes". This finding cannot be made without absolutely disregarding the material and controlling facts.

At the hearing the company relied, as the basis of this floating debt, upon a schedule showing that about \$16,000,000 of it was incurred in the payment of indebtedness said to have been outstanding on June 30, 1910, and therefore deemed to be made lawful by the Validation Act; that about \$12,000,000 was incurred for additional equipment purchased; and the balance for extensions and

improvements of all sorts made in Massachusetts, Rhode Island, Connecticut and New York.

In passing, I note that no engineer's report has been made as to the equipment or as to the additions and improvements, although such report is ordinarily a condition precedent to the issuance of even \$50,000 of new capital. Why the same care should not be applied to ascertaining the nature and value of such expenditures on the New Haven as is used with companies whose management has not been criticised, is for the majority of the Commission to explain. A dangerous precedent is being set to the effect that any company, by merely filing schedules showing alleged disbursements of millions of dollars for equipment, double-tracking, etc., becomes thereby entitled to new capital to cover these expenditures, — without an examination and report of any engineer employed by the Commission or even a report from the company's own engineer. So far as I can ascertain, neither this nor any other commission having similar powers has ever proceeded in such loose fashion with relation to any other issue of capital. The question as to whether the company has charged off proper depreciation in its equipment account has been under serious discussion between the company and the Interstate Commerce Commission for a long time. This fact alone puts this Commission on inquiry as to the validity of that account, but the inquiry has not been made.

On October 10th, after the hearing, the company shifted (or tried to shift) its ground as to the basis for a large part of the floating indebtedness, substituting for most of the expense of the improvements upon its railroad property, a statement of investments made in Boston Railroad Holding Company preferred stock (Boston and Maine) and in the Berkshire Street Railway Company. Still a third schedule, showing in large part a different basis for this debt, is contemplated by the order of the majority.

Even if, which is very doubtful, this Commission could find that any one of these schedules involved only debts "properly incurred for lawful purposes", that would not meet the difficulty; for the company's proposition is, in effect, this: — that even if, during the three years from June 30, 1910, to June 30, 1913, it has received on capital account by reason of sales of securities large sums of money and has disbursed them *unlawfully*, yet if, during the same period, it has borrowed and spent for lawful purposes other sums equal to the floating debt, the floating debt must on that ground be deemed to have been "properly incurred for lawful purposes". To illustrate — suppose a railroad company had sold \$10,000,000 of securi-

ties that it lawfully held in its treasury and for which capital had been duly issued, and had illegally divided the proceeds among its board of directors, within a given period; that during the same period it had borrowed \$10,000,000 and properly spent \$10,000,000 for new stations, bridges, and other proper capital purposes: on the theory adopted in this case, the \$10,000,000 of new debt must be deemed to be "properly incurred for lawful purposes", even although there would have been no such debt in existence had the \$10,000,000 received as proceeds of the sales of stocks already capitalized been used for legal purposes. It is too clear for argument that no debt incurred by any railroad company within any given period can be found to have been "properly incurred for lawful purposes" without an accounting of *all* the capital receipts and expenditures during that period. Money is not earmarked. If the company has received money on capital account, has illegally expended it, and has also incurred debt during the same period, the debt is as much attributable to the illegal expenditures as to the legal expenditures.

That such is the situation as to the New Haven is beyond question, so far as any inferences drawn from the New Haven book-keeping can be said to be beyond question. The company's confused and confusing accounts and returns deserve all the criticism made of them by Interstate Commerce Commissioner Prouty in opinion No. 2384, page 590, — and more. For illustration — in a tabulation prepared by the chief accountant of the Commission from schedules furnished by the company, it appears that since June 30, 1910, the corporation has put into the New England Navigation Company over \$7,000,000 and into the Millbrook Company over \$3,500,000. Neither of these advances can be capitalizable under Massachusetts railroad law. It is possibly inferable from the Millbrook Company's return that it may be holding, on the New Haven account, large quantities of real estate along the line of the new Westchester road. Assuming that to be so, then the New Haven is making advances to the Millbrook Company to carry on a real estate speculation in upper New York. Massachusetts law does not permit such loans to be capitalized as part of a railroad property. The New England Navigation Company, whose stock is all owned by the New Haven Company, it appears at some time loaned over \$10,000,000 to the Billard Company, the nature of the relation of which to the New Haven as well as its financial responsibility is left in much doubt. At any rate, Massachusetts law does not permit railroad companies to loan \$10,000,000 to unknown

companies for unknown purposes, as a basis of capitalization. (Compare Commissioner Prouty's report, pages 584, 585.) These items are but illustrative. The nature of the New Haven organization as a "non-supervised holding company" permits it to make practically unlimited advances to subordinate or controlled companies which advances may be (and apparently have been) disposed of without any regard whatsoever to Massachusetts law. It is certain from the schedules filed that many millions of dollars have, during the three years since the validation report, been expended for purposes utterly illegal under our law and that but for those illegal expenditures the floating debt now sought to be funded would in whole or in large part not have existed. Very limited inquiry as to the New England Investment Company leaves grave suspicion in the mind that there has never been compliance with the decree of our full court in the case of Attorney-General *vs.* New York, New Haven and Hartford Railroad Company, 198 Mass., which enjoined the corporation from holding "directly or *indirectly*" the stocks of Massachusetts trolleys. The evidence does not, at any rate, warrant a finding that a part of the present floating debt does not rest upon investments in Massachusetts trolleys, held in contempt of a final decree of our court of last resort. Manifestly, a debt which would not exist if the company had complied with this decree, cannot be a debt "properly incurred for lawful purposes". The fact that the company has in the past three years, on its own showing, paid in dividends more than \$6,000,000 in excess of its net earnings, and is now admittedly earning less than five per cent net, effectually excludes the theory that there is any large surplus against which accumulated depreciation or debts unlawfully incurred may hereafter be charged, even if that were — as it is not — a proper method of procedure.

The opinion of the majority refers to "the advice of the experts of the Commission" as assisting them in coming to their conclusion that "the company's floating debt represents capital expenditures properly incurred for lawful purposes to the amount of \$40,023,750". The chief accountant, the only "expert" whose "advice" has been taken, reports to the effect and *only* to the effect: — that he finds that since June 30, 1910, the date when the validation report took effect, the company has received from the new stock issued \$21,070,281.23, from floating debt in excess of the floating debt then outstanding, \$36,818,385.72 — a total of \$57,888,666.95 in actual cash; that he finds capital disbursements by way of payments of outstanding debts, purchases of new equipment, items

charged on the books as extensions and improvements, and advances to subsidiary companies, sufficient to offset these items of cash. But the same expert also reports that there have been large transactions in the other items of capital account of the company; that the company has bought securities, sold securities, exchanged securities, written up the value of securities, written down the value of securities; that the company has also sold its parlor car equipment; that from all the reports and schedules in his possession he is utterly unable to report what the entire amount of capital receipts have been during this three year period (compare Commissioner Prouty's report, page 591).

Manifestly, the "advice" of this expert is simply to the effect already stated, to wit: — that he finds *certain* capital expenditures which may offset *certain* capital receipts. Whether there are other capital receipts which, if properly expended, would have offset or paid all or much of this floating debt he has no knowledge whatever, and offers no "advice".

One table prepared by the chief accountant shows that in this three year period since the validation act the company has increased its holdings of stock by over \$17,000,000, decreased its holdings of bonds by about \$37,500,000, its cash by nearly \$6,000,000, its miscellaneous securities by nearly \$28,000,000, and increased its loans and bills receivable by nearly \$52,000,000, the net result of its increases and decreases being an increase of about \$15,500,000. These buyings and sellings and changings are not railroad finance within the meaning of Massachusetts law.

The position of the majority is subject to the condemnation visited by the Supreme Court of the United States upon the Interstate Commerce Commission in *Interstate Commerce Commission vs. L. & N. R.R. Co.* 227 U. S. 88. In that case it was insisted that the order of the Commission could not be set aside even if the finding was wholly without substantial evidence to support it. The court dealt with that contention in the following severe language:

But the statute gave the right to a full hearing, and that conferred the privilege of introducing testimony, and *at the same time imposed the duty of deciding in accordance with the facts proved. A finding without evidence is arbitrary and baseless.* And if the government's contention is correct, it would mean that the Commission had a power possessed by no other officer, administrative body, or tribunal under our government. It would mean that where rights depended upon facts, the Commission could disregard all rules of evidence, and capriciously make findings by administrative fiat. Such authority, however benef-

icently exercised in one case, could be injuriously exerted in another; is inconsistent with rational justice, and comes under the Constitution's condemnation of all arbitrary exercise of power.

In the comparatively few cases in which such questions have arisen it has been distinctly recognized that administrative orders, quasi-judicial in character, are void if a hearing was denied; if that granted was inadequate or manifestly unfair; if the finding was contrary to the 'indisputable character of the evidence.'

To find, as the majority have attempted to find, on the showing made by this company, that its floating debt of \$40,000,000 was "properly incurred for lawful purposes", is, in the language of the Supreme Court, "capriciously to make findings by administrative fiat", and "contrary to the indisputable character of the evidence"; it is utterly subversive of the whole theory of our law as to controlling the capitalization of public service corporations, and opens wide the way to unlimited fraud and robbery.

(6) Nor am I able to agree with the majority that the rate of interest and terms of issue are consistent with the public interest. The claim that the credit of the New Haven railroad is so impaired that it cannot obtain money at less than six per cent plus an underwriting commission is a confession of mismanagement and resulting injury which, in my view, goes beyond the sad truth. Few will deny that the mismanagement of this corporation has been deplorable; but I am not ready to agree that this, one of the finest railroad properties in the world, is in such dire straits that it cannot borrow money substantially at the market rates; there was no evidence before this Commission at the hearing which warranted such a finding. On the contrary, the weight of the evidence adduced by the company itself was to the effect that, while the financial conditions in July, when the directors voted, were thought to be so bad as to justify the six per cent rate of interest, actual conditions at the time of the hearing were so improved that the money could now be obtained at a much less rate, probably at about five per cent. This Commission must deal with present, not past, conditions. There was abundant evidence at the hearing (and it is a matter of common knowledge) that other corporations, less fortunately situated than the New Haven in all material respects, are obtaining their needed funds at a rate not much, if any, exceeding five per cent. Ex-Governor Bulkeley of Connecticut, President of the *Ætna Insurance Company*, and a man of large affairs, connected with many financial institutions, and representing a large block of New Haven stock,

was confident in his view that the company could get all the money it needed, without any underwriting, at five per cent. This testimony is entitled to great weight.

This plan of a six per cent convertible bond issue, to be underwritten by J. P. Morgan and Company, originated on or before July 11, 1913, in the executive committee, of which Mr. Morgan was a member. The directors ratified, as of course, the recommendations of the executive committee. It is not to be expected that the stockholders could or would do otherwise; stockholders cannot devise and carry into effect financial plans in the best of times, much less in times such as prevailed in July and August, last.

Now, when this plan was devised, this company had a contract with J. P. Morgan and Company in the nature of an insurance policy against just such risks of needing money in hard times as the company was then facing. This contract is evidenced by a letter dated November 17, 1910, to Mr. Charles S. Mellen, President of the New Haven and other affiliated and controlled railroad companies, and is as follows:

Referring to the recent conferences respecting a fiscal agency agreement between ourselves and your companies, we would be pleased to act as fiscal agents on the following understanding:

From time to time as either of your companies may desire to sell its securities we will give it the benefit of our counsel and advice, with a view of obtaining the best possible results to the company, and in its behalf we will offer such securities for sale at prices mutually satisfactory. In case there should be a radical disagreement regarding the value of the company's securities to be offered, then this agreement is to be suspended as to such securities.

Pending the sale of any such securities or the realization of the proceeds thereof, we will loan to the company from time to time, upon the securities then offered, such sum as it may desire, not exceeding in the aggregate ninety per cent of the offer price agreed upon, payable at any time within one year, as the company may in each instance elect, the company's notes for such loans to bear interest at a fair rate to be determined in each instance according to the circumstances, such rate not to exceed in any instance six per cent per annum.

In view of such unlimited commitment to loan up to ninety per cent, we would want it understood that we shall be the sole agents of the company in the sale of its securities while the arrangement shall remain in force. This obligation will be binding upon us at all times regardless of monetary conditions then prevailing.

As compensation for all services rendered, we will accept a commission of one and one-half per cent of the par value of securities sold, payable from the proceeds of the sale.

This arrangement is not, however, to cover the handling of any financial arrangements between the company and its stockholders, such as the offering of additional stock or convertible debentures to stockholders, nor the temporary borrowings of the company upon its promissory notes, or, in other words, covering the issue of temporary obligations for floating debt, the company being in position to better handle this directly with the banks in the community it serves than through any financial agency.

We suggest that the arrangement continue until the lapse of ninety days after either shall have given written notice to the other of a desire to terminate it.

The written acceptance of these suggestions will be regarded as the conclusion of an agreement between us and the New York, New Haven & Hartford Railroad Company, the Maine Central Railroad Company and the Boston & Maine Railroad Company, respectively, to the effect above stated.

Very truly yours,
(Signed) J. P. MORGAN & Co.

Note that this letter gives J. P. Morgan and Company the monopoly of marketing the New Haven securities in good times at one and one-half per cent, the consideration being the agreement of this great banking house to take care of the companies in hard times when securities could not be satisfactorily marketed. There is an exception in the contract in favor of the company as to financial arrangements between the company and its stockholders; in such cases the company was supposed to get its money without paying any banker's commission. Now if this issue of bonds had not had the convertible feature and thus fallen, nominally at any rate, within the exception, it would have been the legal duty of J. P. Morgan and Company to lend the company, up to ninety per cent of the offer price at a rate not exceeding six per cent, such moneys as might be desired to take care of its pressing needs. It was the insertion of the convertible feature which let J. P. Morgan and Company out of the operation of this contract and laid the foundation for the plan of underwriting, at two and one-half per cent, an issue which was to be offered to the stockholders. In other words, after this great banking house had agreed to take care of this corporation in hard times at one and one-half per cent, this plan was devised which, whatever the motive, resulted in letting the bankers

out of their obligation and charging the corporation two and one-half per cent commission, even although the stockholders themselves were supposed to be (and are to be) the takers of the issue.

This is a fair sample of the vicious banker-director methods that characterize our modern high finance. It is the same kind and character of administration which has brought this splendid property to its present condition, and has entailed losses of scores of millions of dollars upon New England investors. This Commission ought not, directly or indirectly, to give its approval to any such proceeding. The arrangement to divide part of the profits of this underwriting among Boston banking interests has inevitably tended to create an apparent public demand for the approval of the issue that is very misleading. A desire for underwriting profits is to be distinguished from a patriotic hope that our railroads and investors therein may hereafter flourish.

The majority opinion contains a criticism of the banker-director underwriting commission, but it is this same majority that is casting the vote necessary to enable these banker-directors and their associates to take from the treasury of this already depleted and overloaded railroad corporation this commission so scathingly condemned. The way to end this vicious and indefensible exploitation of public service corporations for the benefit of some of the directors who control them is to *vote against* the exploitation, not to *write* against it and *vote for* it. This Commission will justly be held responsible for the payment of this sum of nearly \$2,000,000 as the price of permitting the corporation to offer to its own stockholders something that those stockholders can sell if they do not want to take it themselves. The subscription rights to the debentures if and when issued, have had a substantial market value from the moment that they were announced.

Indeed, on analysis, it is this underwriting profit that is the controlling factor in the whole plan. Why should the almost panic time of last July have been selected for the purpose of wholesale financing — not for immediate needs — but for a period of probably two years or more? The company had some \$12,000,000 of cash in its treasury; it had no pressing obligations until December; it had the Morgan contract. Neither a six per cent rate nor an underwriting commission would have been thinkable except for this wholesale financing and in hard times.

If the company needs the assistance of these bankers to take care of the \$40,000,000 of short-time notes becoming due December 1st, it is, on every principle of law and business responsibility entitled

to have it, and to continue to have it, until its finances are again put upon a sound basis, its security offerings made in reasonable amounts and at proper times,—so as not again to engorge the market and lay the foundation for these mysterious threats of a receivership, by which this Commission has been sought to be stampeded from a full and fair consideration of the merits of the real issues of law and fact presented by this application. There is a limit to losses which even a banker management dare inflict upon any set of investors. That limit has been reached in the case of the New Haven stockholders.

Nor can it be overlooked that to capitalize the existing debts and to borrow \$21,000,000 for new equipment involves by implication an approval of the entire policy of the company pursued during the last decade of buying and holding steamships, trolleys and other outside properties. Under the Panama act this company must divest itself of its steamship properties before July next, unless it obtains exemption from the Interstate Commerce Commission. This Commission now has no ground to believe that it will obtain such exemption. The Interstate Commerce Commission has recommended that the corporation divest itself of its trolleys. It is common knowledge that the company is threatened with proceedings by the national government under the Sherman act, if it does not divest itself of many of its holdings. Now if it, either under legal compulsion or voluntarily, is to divest itself of these holdings, there is no justification whatever for borrowing money for twenty years at six per cent in order to continue the holding of securities which appear to be paying the corporation less than four per cent.

According to the balance sheet of June 30, 1913, out of total book assets amounting to about \$490,000,000, the property investment in road and equipment is about \$192,000,000; securities of proprietary, affiliated or controlled companies about \$40,000,000; other investments about \$133,000,000, of which unpledged securities amount to \$123,000,000. Among the other assets are such items as loans and bills receivable of nearly \$52,000,000. Granting that this is not an opportune time to sell securities in large quantities, it does not follow that there is justification of capitalizing these securities for twenty years at six per cent. If this company is to comply with national and state law and become a railroad corporation, not "a non-supervised holding company", it is exactly the situation to which short-time financing has a proper application.

There are held by the New Haven certain securities of unquestioned value and marketability, the ownership of which is not neces-

sary to any of its present legitimate railroad purposes. They are shown in the following table, which also states their current selling prices and the basis upon which they are selling.

NAME.	Amount.	Current Quotations.	Selling on Basis of (Per Cent.).
Old Colony R.R., ...	\$13,065,341	166	4.21
Boston & Providence, ...	1,582,443	265	3.70
Providence & Worcester, ...	2,738,762	200	5.00
N. Y. P. & B. -4s, ...	247,660	88	4.75
New Haven 6 per cent deb., ...	600,800	114	5.12
New Haven 3½ per cent deb., ...	785,300	73	4.80
New Haven 4 per cent deb., ...	45,000	70	5.20
	\$19,065,106		

NOTE. — In addition the New Haven has in its treasury or in that of the New England Navigation Company:

Hartford & Conn. West, ...	\$1,201,083
M. & M. S. S. Co. 4s, ...	3,260,000
East. S. S. Co. 5 per cent, ...	2,500,000
M. & M. stock, ...	2,634,800
E. S. S. Co. stock, pfd., ...	1,462,500
Prov., Warren & Bristol, ...	730,432
	\$11,088,815

The majority of these securities are of lines held under leases which do not expire for some eighty years. Ownership of these securities is not necessary at present to the integrity of the system, however desirable these investments might be for a prosperous railroad with a large surplus, able to borrow at low rates. The petitioner insists that it is here facing a financial emergency. In such a situation sane men are guided by their necessities, not by their desires.

It is a reasonable hope that the prudent and law-abiding management which has been promised will bring the finances of this company in much less than eighty years to the point where it can afford such investments. When it has, the situation will be changed.

The present sale of these securities should bring to this depleted treasury some twenty millions of dollars and would save the suffering stockholders, annually, in the amount of interest proposed to be paid on these Morgan debentures nearly \$400,000. This would be a normal application of capital to capital purposes. A Massachusetts supervisory commission should, without apology, demand normal financing of Massachusetts railroad corporations.

(7) In view of the fact that a new president has just been put at the head of this great corporation, in favor of whose intentions for sound and lawful management every presumption is, and ought

to be, drawn, I am unwilling to close this dissenting opinion without expressing some views of a more constructive character.

There seems to me to be a plain and simple course that this corporation ought to pursue to bring itself into proper relations with Massachusetts law and policy, — in brief as follows:

(1) Application should be made to the next legislature to validate the outstanding capital stock and premium account. This Commission ought to recommend such validation, unless, on further investigation of the last three years of financing, something worse than has yet been disclosed should appear. If this stock should then be validated, the corporation would have about \$180,000,000 as the basis of double that amount of debentures which could be issued under section 15 of the Washburn act. This would furnish an absolutely clear legal basis for the issuance of any amount of debentures needed for steel cars, other additions to equipment or to the railroad property itself.

(2) The present floating debt ought to be paid out of the proceeds of the securities which should be sold from time to time. In my opinion, it is, and will continue to be, impossible to square the origin and nature of that debt with any law that is or ought to be on the statute books of Massachusetts. If the company is to follow even slowly and approximately the provisions of the Panama act and the recommendations of the Interstate Commerce Commission, it will have no difficulty, out of the proceeds of a sale of some of the nearly \$200,000,000 of securities which it now holds, of finding funds to pay off this floating debt. In the meantime, without any application to this Commission, it may be renewed, in whole or in part, for periods not exceeding twelve months.

If such a policy as this should be adopted there would be no necessity for asking this Commission to disregard either the letter or the spirit of Massachusetts law; the credit of the corporation would be established on a perfectly sound and legal basis; the new president would be able to devote himself to operating a real railroad; the good will of the people of the Commonwealth would follow; peace would reign.

GEORGE W. ANDERSON.

OCTOBER 14, 1913. [P. S. C. 99]

Petition of the Northampton Street Railway Company for approval of issue of additional common stock.

It appearing, after notice and hearing and further investigation, that the proposed issue of capital stock is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the issue by the Northampton Street Railway Company, at the price of one hundred dollars (\$100) per share, as fixed by its stockholders, of additional shares of capital stock not exceeding one thousand five hundred (1,500) in number, amounting at par value to one hundred fifty thousand dollars (\$150,000), as an issue of stock reasonably necessary and of the amount required for the following purposes:

1. The proceeds of shares not exceeding one thousand three hundred twenty (1,320) in number, amounting at par value to one hundred thirty-two thousand dollars (\$132,000), are to be applied exclusively for the payment of floating indebtedness properly incurred in the construction and equipment of its railway and in the purchase of property necessary for its operation, described in the schedule on file with the petition.

2. The proceeds of shares not exceeding one hundred eighty (180) in number, amounting at par value to eighteen thousand dollars (\$18,000), are to be applied toward the payment for new track construction completed and toward the cost of new equipment ordered, as described in a schedule on file with the petition.

Any excess in the proceeds of these shares over the amounts to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
JUNE 24, 1913. [R. R. C. 9245] Clerk.

Petition of the Northern Massachusetts Street Railway Company (formerly the Athol and Orange Street Railway Company) for approval of an issue of bonds.

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for lawful purposes and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to an issue by the Northern Massachusetts Street Railway Company (formerly the Athol and Orange Street Railway Company) of coupon bonds to an amount not exceeding at their face value five hundred thousand dollars (\$500,000), payable thirty (30) years from date thereof and bearing interest at a rate or rates not exceeding five per cent (5%) per annum, as an issue of bonds reasonably necessary and of the amount required for the following purposes:

1. The proceeds of bonds amounting at their face value to two hundred forty-five thousand dollars (\$245,000) shall be applied exclusively to the payment and refunding of sixty thousand dollars (\$60,000) face amount of bonds of said company due January 1, 1915, and one hundred eighty-five thousand dollars (\$185,000) face amount of bonds of the Gardner, Westminster and Fitchburg Street Railway Company due February 1, 1920, assumed by said company upon consolidation, said bonds to be issued only as the said outstanding bonds to an equal face amount are cancelled or cash to such face amount deposited with the trustee for the payment of the same.

2. The proceeds of bonds amounting at their face value to two hundred fifty-five thousand dollars (\$255,000) shall be applied exclusively toward the payment of floating indebtedness incurred for the payment of the necessary cost of permanent additions to and improvements in the street railway property of the petitioner, as shown by an appraisal of the company's property.

Any excess in the proceeds of these bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,

JUNE 20, 1913.

[R. R. C. 9305]

Clerk.

*Petition of the Plymouth and Sandwich Street Railway Company
for approval of an issue of additional capital stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of common and preferred capital stock is for lawful purposes and is consistent with the public interest,—it is

Ordered, That the approval of the Board be hereby given to the issue by the Plymouth and Sandwich Street Railway Company, at

the price of one hundred dollars (\$100) per share, as fixed by its stockholders, of additional shares of common stock not exceeding one thousand four hundred (1,400) in number, amounting at par value to one hundred forty thousand dollars (\$140,000), and of five hundred seventy (570) shares of six per cent cumulative preferred capital stock, amounting at par value to fifty-seven thousand dollars (\$57,000), which preferred stock shall have the preferences, restrictions and qualifications which have been fixed by two-thirds vote of all the stock of said company, as set out in a copy of said vote described in the petition of the company dated February 28, 1913, as an issue of stock reasonably necessary and of the amount required for the following purposes:

1. The proceeds of two hundred seventy (270) shares of preferred stock, amounting at par value to twenty-seven thousand dollars (\$27,000), are to be applied exclusively to the payment of floating indebtedness properly incurred in the construction and equipment of the railway and in the purchase of property necessary for its operation.

2. The proceeds of three hundred (300) shares of preferred stock, amounting at par value to thirty thousand dollars (\$30,000), and of one thousand four hundred (1,400) shares of common stock, amounting at par value to one hundred forty thousand dollars (\$140,000), shall be applied exclusively to the payment of the necessary cost of building and equipping an extension of its railway in the towns of Plymouth, Sandwich and Bourne.

Any excess in the proceeds of these shares over the amounts to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
MAY 22, 1913. [R. R. C. 9261] Clerk.

*Petition of the Plymouth and Sandwich Street Railway Company
for approval by the Commission of an alteration in the preferences, restrictions and qualifications governing certain preferred stock.*

It appearing that by an order of the board of railroad commissioners dated May 22, 1913, the petitioner was authorized to issue five hundred and seventy (570) shares of six (6) per cent, cumu-

lative, preferred capital stock amounting at par value to fifty-seven thousand (57,000) dollars and having the preferences, restrictions and qualifications fixed by vote of the stockholders of the company at a meeting of the company held February 11, 1913, but that upon the date of the petition none of said preferred stock had been issued by the petitioner or was outstanding; and it appearing further that it is desired by the petitioner that the preferences, restrictions and qualifications applicable to said preferred stock should be altered by inserting the words hereinafter set forth, and it appearing further that at a meeting of the stockholders duly called for the purpose and held August 9, 1913, more than two-thirds of the total outstanding stock of the company being present and voting in the affirmative, it was voted that the preferences, restrictions and qualifications governing said preferred stock should be amended by the insertion of the words hereinafter set forth:—

After notice and hearing and further investigation, — it is

Ordered, That the approval of the Commission be hereby given to the alteration of the preferences, restrictions and qualifications applicable to said preferred stock by adding thereto the following language:—

The preferred stock outstanding at any time may be redeemed in whole, but not in part, by the corporation on any dividend day by the payment therefor of the sum of one hundred and twelve (112) dollars per share provided that written notice of such redemption shall be sent by mail to every holder of preferred stock at his address as it appears upon the books of the corporation at least sixty (60) days before the date fixed for such redemption. In case of such redemption said stock shall be entitled to dividends in full up to the date fixed for redemption but no shares not presented for redemption on said date shall be entitled to any dividends thereafter.

Attest:

CHARLES E. MANN,

OCTOBER 1, 1913.

[P. S. C. 94]

Secretary.

Petition of the Union Street Railway Company for approval of an issue of bonds.

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest, — it is

Ordered, That the approval of the Commission be hereby given to the issue by the Union Street Railway Company of coupon or

registered mortgage bonds to an amount not exceeding at par value two hundred fifty thousand dollars (\$250,000), payable twenty years from date thereof and bearing interest at the rate of four and one-half ($4\frac{1}{2}$) per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the payment and refunding of outstanding bonds of the company amounting to two hundred fifty thousand dollars (\$250,000), which mature January 2, 1914.

Any excess in the proceeds of these bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Commission shall hereafter approve.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 3, 1913. [P. S. C. 236] Secretary.

Petition of the West End Street Railway Company for approval of an issue of bonds and for approval of application of proceeds of a former issue of bonds and for approval of an issue of additional common stock.

It appearing, after notice and hearing and upon further investigation, that the proposed issue of bonds, application of proceeds of a former issue of bonds and an issue of capital stock are for lawful purposes and are consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to an issue by the West End Street Railway Company of coupon or registered bonds to an amount not exceeding at par value six hundred thousand dollars (\$600,000), said bonds to bear date of November 1, 1912, payable twenty years from date thereof and bearing interest at the rate of five per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the purpose of paying in part the necessary cost of permanent additions to and improvements in the railway property of the petitioner, made by the Boston Elevated Railway Company in accordance with the terms of the lease between said companies and described in the schedules on file with the petition.

And it is further

Ordered, That the approval of the Board be hereby given to the application of twenty-eight thousand seven hundred twenty-seven dollars and forty cents (\$28,727.40), realized as a part of the pro-

ceeds of bonds issued under an order of the Board dated April 4, 1912, and being the amount received by the company in excess of that required for the purpose named in said order, toward the cost of permanent additions to and improvements in the property of the company made under the terms of the above named lease and described in the above named schedules.

Any excess in the proceeds of this issue of bonds which may be realized from premiums shall be held for such application to the cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

And it is further

Ordered, That the approval of the Board be hereby given to an issue by the West End Street Railway Company of additional shares of common stock not exceeding forty-four hundred (4400) in number, amounting at par value to two hundred and twenty thousand dollars (\$220,000), as an issue of stock reasonably necessary and of the amount required for the purpose of paying in part the necessary cost of permanent additions to and improvements in the railway property of the petitioner, made by the Boston Elevated Railway Company in accordance with the terms of the lease between said companies and described in the schedules on file with the petition.

It further appearing that the directors desire to dispose of said stock by public auction in the manner provided by law and that the amount of this issue does not exceed four per cent of the existing capital stock of the company, — it is

Ordered, That the forty-four hundred (4400) shares of common stock herein authorized be offered for sale by public auction in the city of Boston to the highest bidder at not less than par value to be actually paid in cash; and that the Boston Daily Advertiser, the Boston Transcript and the Boston News Bureau be prescribed as the daily newspapers in which notice of the time and place of such sale shall be published at least five times during the ten days immediately preceding the sale.

Any excess in the proceeds of these shares over the amount to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,

FEBRUARY 13, 1913.

[R. R. C. 9162]

Clerk.

*Petition of the Worcester Consolidated Street Railway Company
for approval of an issue of bonds.*

It appearing, after notice and hearing and further investigation, and an appraisal of the power house property of the Electric Manufacturing Company, that an issue of bonds for the purchase of the same by the Worcester Consolidated Street Railway Company is lawful and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the issue by the Worcester Consolidated Street Railway Company of coupon or registered bonds to an amount not exceeding at par value four hundred fifty thousand dollars (\$450,000), said bonds to be dated August 1, 1910, to be payable twenty years from date thereof and to bear interest at the rate of four and one-half per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the purpose of acquiring the power house property of the Electric Manufacturing Company.

Any excess in the proceeds of these bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,
JANUARY 28, 1913. [R. R. C. 9075] Clerk.

*Petition of the Worcester Consolidated Street Railway Company
for approval of the acquisition of park property and for ap-
proval of an issue of bonds.*

It appearing, after notice and hearing and further investigation, and an appraisal of the park property of the Quinsigamond Park Company, that an issue of bonds for the purchase of the same by the Worcester Consolidated Street Railway Company is lawful and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the acquisition by the Worcester Consolidated Street Railway Company of the park property described in said petition and to the issue by said company of coupon or registered bonds to an amount not exceeding at par value fifty thousand dollars (\$50,000), said bonds to be dated August 1, 1910, to be payable twenty years from date thereof and to bear interest at the rate of four and one-half

per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the purpose of acquiring the park property of the Quinsigamond Park Company; and the petitioner is hereby required, except as this requirement may hereafter be modified by the Board, for the purpose of retiring said bonds at maturity, to establish a sinking fund, with the Old Colony Trust Company of Boston as trustee and custodian of such fund, and to pay into said fund, by equal annual payments on the first day of August in each year, the sum of one thousand nine hundred forty-nine dollars and sixty-seven cents (\$1,949.67), until the maturity of said bonds, and to make the first of such annual payments on August 1, 1913.

Attest: CHARLES E. MANN,
JANUARY 28, 1913. [R. R. C. 9076] Clerk.

Approval of agreement between the Worcester Consolidated Street Railway Company and the Old Colony Trust Company, as trustee, relative to the establishment of a sinking fund.

It appearing that, under the provisions of chapter 536 of the Acts of 1910, the Worcester Consolidated Street Railway Company has entered into an agreement with the Old Colony Trust Company of Boston, dated March 20, 1913, whereby it has established a sinking fund for fifty thousand dollars (\$50,000), being the face amount of certain bonds approved by the Board January 28, 1913, — it is

Ordered, That the approval of the Board be hereby given to the provisions of the above agreement, a copy of which is on file in this office, and that the Old Colony Trust Company of Boston be hereby approved as trustee of said sinking fund.

Attest: CHARLES E. MANN,
APRIL 7, 1913. [R. R. C. 9277] Clerk.

CONSOLIDATIONS AND LEASES.

CONSOLIDATIONS.

Petition of the Athol and Orange Street Railway Company and the Templeton Street Railway Company for approval of the terms of the proposed purchase by the first named company of the property and franchise of the last named company.

It appearing, after due notice and hearing, that the Athol and Orange street railway and the Templeton street railway are connecting railways; that the terms of purchase and sale have been duly agreed to and approved by the directors and stockholders of each of the contracting companies as required by law, and that the proposed purchase and sale involves no decrease in the facilities for travel on the railway of each of the said companies and no increase in the rates of fare, but, on the contrary, promises additional advantages to the travelling public;

And it further appearing that the fair appraisal value of the existing railway and permanent property of the said Templeton Street Railway Company, including its Winchendon extension, so called, as of December 31, 1912, would be four hundred thirty-five thousand dollars (\$435,000);

And it also appearing that certain of the holders of the outstanding liabilities of said Templeton Street Railway Company will, contemporaneously with the transfer of said property to the Athol and Orange Street Railway Company, cause the liabilities (other than claims for personal injuries incurred in the operation of the railway, but including the value, if any, of the capital stock of the Templeton Street Railway Company) as shown on the balance sheet of the company of December 31, 1912, filed with the papers, to be reduced to the amount of four hundred thirty-five thousand dollars (\$435,000), — it is

Ordered, That the approval of the Board be hereby given to the purchase by the Athol and Orange Street Railway Company of all the franchises and property of said Templeton Street Railway Company, pursuant to the terms of the contract between said companies

dated the eighteenth day of July, 1912, a copy of which contract is on file with this petition, the consideration price for the conveyance of said property under the terms of said contract to be the sum of four hundred thirty-five thousand dollars (\$435,000); such consideration price to be paid by said Athol and Orange Street Railway Company either by the assumption and payment, as contemplated under said contract, of the valid and legal obligations of the Templeton Street Railway Company outstanding as of said appraisal date to the amount of said sum of four hundred thirty-five thousand dollars (\$435,000), or by the payment to said Templeton Street Railway Company of said sum of four hundred thirty-five thousand dollars (\$435,000) in cash, or by the payment of said sum in part by the assumption and payment of such obligations and in part by cash.

This order is made by the Board without prejudice to the rights of any stockholder of the Templeton Street Railway Company dissenting from the terms of purchase and sale, as herein approved, to secure a valuation of his shares and payment therefor to the amount ascertained, if any, under the terms and provisions of section 52 of part III of chapter 463 of the Acts of 1906, as amended and added to by chapter 357 of the Acts of 1911.

Attest: CHARLES E. MANN,
JANUARY 14, 1913. [R. R. C. 8926] Clerk.

Petition of the Athol and Orange Street Railway Company and the Gardner, Westminster and Fitchburg Street Railway Company for approval of terms of consolidation, and petition of the Athol and Orange Street Railway Company for authority for an issue of additional capital stock.

It appearing, after notice and hearing, that the railways of the contracting companies connect; that the Gardner, Westminster and Fitchburg Street Railway Company is to transfer all its property and franchises to the Athol and Orange Street Railway Company, which is to assume all outstanding indebtedness and fulfil all obligations of the Gardner, Westminster and Fitchburg Street Railway Company; that the purchase and sale involves no decrease in facilities for travel and no increase in rates of fare, and is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the

terms of this contract of consolidation, a copy of which is on file in this office.

And it appearing that an increase in the capital stock of the Athol and Orange Street Railway Company is reasonably requisite for the purpose of effecting an exchange of stock, share for share, as an incident of the proposed consolidation, and that an issue of this additional stock involves no increase in the aggregate amount of the capital stock and indebtedness of the contracting companies, — it is

Ordered, That the approval of the Board be hereby given to an increase in the capital stock of the Athol and Orange Street Railway Company by the issue of shares not exceeding one thousand eight hundred fifty (1,850) in number, amounting at par value to one hundred eighty-five thousand dollars (\$185,000), the said shares to be issued for the purpose of carrying out the terms of said contract and in exchange, share for share, for the outstanding shares of the Gardner, Westminster and Fitchburg Street Railway Company, the certificates of the last named shares to be upon exchange surrendered and cancelled.

Attest: CHARLES E. MANN,

FEBRUARY 28, 1913.

[R. R. C. 9219, 9220]

Clerk.

Petition of the Massachusetts Northeastern Street Railway Company and the Amesbury and Hampton Street Railway Company for approval of terms of purchase and sale, and for authority for an issue of additional capital stock by the Massachusetts Northeastern Street Railway Company.

It appearing, after notice and hearing, that the railways of the contracting companies connect; that acting under and subject to the provisions of chapter 724 of the Acts of the general court of Massachusetts of the year 1912, and chapter 94 of the Acts of the general court of the state of New Hampshire of the year 1911, and of general laws of this Commonwealth, the Massachusetts Northeastern Street Railway Company (formerly the Haverhill and Southern New Hampshire Street Railway Company) has made and executed an agreement to purchase the franchise and property of the Amesbury and Hampton Street Railway Company; that the terms of such purchase and sale have been agreed to by a majority of the directors and have been approved at meetings called for the purpose by a vote of two-thirds in interest of the stockholders of

each of the contracting companies; that the facilities for travel on the railway of each of said companies will not be thereby diminished nor the rates of fare increased, and that said purchase and sale is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the terms of the agreement, dated February 17, 1913, for such purchase and sale, a copy of which agreement is on file in this office.

And it appearing that an increase in the capital stock of the Massachusetts Northeastern Street Railway Company is reasonably requisite for the purpose of effecting an exchange of stock, share for share, as an incident of the proposed purchase and sale, and that an issue of this additional stock involves no increase in the aggregate amount of the capital stock and indebtedness of the contracting companies, — it is

Ordered, That the approval of the Board be hereby given to an increase in the capital stock of the Massachusetts Northeastern Street Railway Company by the issue of shares not exceeding one thousand (1,000) in number, amounting at par value to one hundred thousand dollars (\$100,000), the said shares to be issued for the purpose of carrying out the terms of said agreement and in exchange, share for share, for the outstanding shares of the Amesbury and Hampton Street Railway Company, the certificates of the last named shares to be upon exchange surrendered and cancelled.

Attest: CHARLES E. MANN,

MARCH 11, 1913.

[R. R. C. 9247]

Clerk.

Petition of the Massachusetts Northeastern Street Railway Company and the Lowell and Pelham Street Railway Company for approval of terms of purchase and sale, and for authority for an issue of additional capital stock by the Massachusetts Northeastern Street Railway Company.

It appearing, after notice and hearing, that the railways of the contracting companies connect; that acting under and subject to the provisions of chapter 724 of the Acts of the general court of Massachusetts of the year 1912, and chapter 94 of the Acts of the general court of the state of New Hampshire of the year 1911, and of the general laws of this Commonwealth, the Massachusetts Northeastern Street Railway Company (formerly the Haverhill and Southern New Hampshire Street Railway Company) has made

and executed an agreement to purchase the franchise and property of the Lowell and Pelham Street Railway Company; that the terms of such purchase and sale have been agreed to by a majority of the directors and have been approved at meetings called for the purpose by a vote of two-thirds in interest of the stockholders of each of the contracting companies; that the facilities for travel on the railway of each of said companies will not be thereby diminished nor the rates of fare increased, and that said purchase and sale is consistent with the public interest, — it is

Ordered, That the approval of the Board be hereby given to the terms of the agreement, dated February 17, 1913, for such purchase and sale, a copy of which agreement is on file in this office.

And it appearing that an increase in the capital stock of the Massachusetts Northeastern Street Railway Company is reasonably requisite for the purpose of effecting an exchange of stock, share for share, as an incident of the proposed purchase and sale, and that an issue of this additional stock involves no increase in the aggregate amount of the capital stock and indebtedness of the contracting companies, — it is

Ordered, That the approval of the Board be hereby given to an increase in the capital stock of the Massachusetts Northeastern Street Railway Company by the issue of shares not exceeding four hundred (400) in number, amounting at par value to forty thousand dollars (\$40,000), the said shares to be issued for the purpose of carrying out the terms of said agreement and in exchange, share for share, for the outstanding shares of the Lowell and Pelham Street Railway Company, the certificates of the last named shares to be upon exchange surrendered and cancelled.

Attest: CHARLES E. MANN,
MARCH 11, 1913. [R. R. C. 9246] Clerk.

CROSSINGS, RAILROAD OR RAILWAY.

EXTENSION OF THE TIME FOR MAINTAINING RAILROAD AND RAILWAY CROSSINGS.

Petition of the Bay State Street Railway Company for authority to maintain and use an existing grade crossing, heretofore authorized, of railroad and railway in East Bridgewater.

After notice and hearing, — it is

Ordered, That the petitioner be authorized to maintain and use a crossing of its railway and the tracks of the New York, New Haven and Hartford railroad at the same level at Central street in East Bridgewater, from the date of this order until December 1, 1914, subject to all provisions of law and to the conditions embodied in the order of the Board issued on the petition of the Brockton and East Bridgewater Street Railway Company under date of November 1, 1897, and to the further condition that any substantial increase in the use of the crossing by the railway or railroad shall be seasonably reported by the petitioner to this Board.

Attest: CHARLES E. MANN,
MAY 19, 1913. . [R. R. C. 9347] Clerk.

Under the provisions of sections 21 and 22 of part I, chapter 463, Acts of 1906, during the period covered by this report, additional orders have been issued extending the time for maintenance of crossings of railroads and railways. Appended is a list of these orders:

Bay State Street Railway.

Newbury, May 19, 1913 — At State street, with the Boston and Maine railroad, until December 1, 1914. Original order issued April 4, 1900, to the Georgetown, Rowley and Ipswich Street Railway Company. [R. R. C. 9347]

Taunton, May 19, 1913 — At Dean street, with New York, New Haven and Hartford railroad, until December 1, 1914. Original order issued March 19, 1900, to the Brockton Street Railway Company, and amended January 17, 1908. [R. R. C. 9347]

Wakefield, May 19, 1913 — At Railroad street, with the Boston and Maine railroad, until December 1, 1914. Original order issued May 2, 1901, to the Reading, Wakefield and Lynnfield Street Railway Company. [R. R. C. 9347]

Wilmington, May 19, 1913 — At Main street, with the Boston and Maine railroad, until December 1, 1914. Original order issued May 24, 1901, to the Lynn and Boston Railroad Company. [R. R. C. 9347]

Berkshire Street Railway.

Adams, May 12, 1913 — At Park street, with the Boston and Albany railroad, until December 1, 1914. Original order issued March 28, 1902, to the Hoosac Valley Street Railway Company. [R. R. C. 9312]

Pittsfield, May 12, 1913 — At Dalton road, with the Boston and Albany railroad, until December 1, 1914. Original order issued May 22, 1902. [R. R. C. 9311]

Blue Hill Street Railway.

Canton, June 3, 1913 — At Washington street, with the New York, New Haven and Hartford railroad, until December 1, 1914. Original order issued November 5, 1900. [R. R. C. 9372]

Holyoke Street Railway.

Amherst, March 1, 1913 — At Main street, with the New London Northern railroad (Central Vermont Railway Company, lessee), until December 1, 1913. Original order issued July 22, 1897, to the Amherst and Sunderland Street Railway Company. [R. R. C. 9243]

Medfield and Medway Street Railway.

Medfield, June 13, 1913 — At Main street, with the New York, New Haven and Hartford railroad, until December 1, 1914. Original order issued February 28, 1900. [R. R. C. 9393]

Middlesex and Boston Street Railway.

Bedford, June 6, 1913 — At Loomis street, with the Boston and Maine railroad, until December 1, 1914. Original order issued March 9, 1900, to the Lexington and Boston Street Railway Company. [R. R. C. 9387]

Hopkinton, June 6, 1913 — At Main street, with the New York, New Haven and Hartford railroad, until December 1, 1914. Original order issued November 22, 1901, to the Westborough and Hopkinton Street Railway Company, and amended July 5, 1902. [R. R. C. 9386]

Waltham, June 6, 1913 — At Lexington street, with the Boston and Maine railroad, until December 1, 1914. Original order issued July 19, 1899, to the Lexington and Boston Street Railway Company. [R. R. C. 9388]

Milford, Attleborough and Woonsocket Street Railway.

Milford, May 12, 1913 — At South Main street, with the Grafton and Upton railroad, until December 1, 1914. Original order issued July 26, 1900. [R. R. C. 9325]

Milford and Uxbridge Street Railway.

Hopedale, May 22, 1913 — With the Grafton and Upton railroad, until December 1, 1914. Original order issued June 25, 1901. [R. R. C. 9350]

Springfield Street Railway.

Ludlow, May 19, 1913 — At Winsor street, with the private railroad of the Ludlow Manufacturing Associates, until December 1, 1914. Original order issued April 1, 1911. [R. R. C. 9337]

Palmer, May 19, 1913 — At the highway between Three Rivers and Thorndike, with the Boston and Albany railroad, until December 1, 1914. Original order issued April 4, 1898, to the Palmer and Monson Street Railway Company. [R. R. C. 9338]

Springfield, May 19, 1913 — At Main street in Indian Orchard, with the Boston and Albany railroad, until December 1, 1914. Original order issued July 22, 1902. [R. R. C. 9336]

Springfield, May 19, 1913 — At Wilbraham road, with the New York, New Haven and Hartford railroad, until December 1, 1914. Original order issued March 21, 1902. [R. R. C. 9335]

West End Street Railway.

Arlington, May 12, 1913 — At Massachusetts avenue, with the Boston and Maine railroad, until December 1, 1914. Original order issued April 13, 1900. [R. R. C. 9331]

Boston, May 12, 1913 — At Neponset avenue, Dorchester, with the New York, New Haven and Hartford railroad, until December 1, 1914. Original order issued November 5, 1903, and amended July 7, 1904. [R. R. C. 9331]

Somerville, May 12, 1913 — At Davis square, with the Boston and Maine railroad, until December 1, 1914. Original order issued April 13, 1900. [R. R. C. 9331]

Watertown, May 12, 1913 — At Arsenal street, with the United States tracks, until December 1, 1914. Original order issued April 20, 1900. [R. R. C. 9331]

Worcester Consolidated Street Railway.

Berlin, May 12, 1913 — At the highway near the West Berlin station, with the New York, New Haven and Hartford railroad, until December 1, 1914. Original order issued November 8, 1899, to the Clinton and Hudson Street Railway Company. [R. R. C. 9327]

Leominster, May 12, 1913 — At Water street, with the New York, New Haven and Hartford railroad, until December 1, 1914. Original order issued December 29, 1898, to the Fitchburg and Suburban Street Railway Company. [R. R. C. 9326]

Northborough, May 12, 1913 — At Main street, with the New York, New Haven and Hartford railroad, until December 1, 1914. Original order issued March 10, 1898, to the Worcester and Marlborough Street Railway Company. [R. R. C. 9328]

Worcester, May 12, 1913 — At Franklin street (formerly Bloomingdale road), with the Boston and Albany railroad, until December 1, 1914. Original order issued February 18, 1902. [R. R. C. 9329]

PRIVATE RAILROADS.

Petition of A. G. Tomasello for consent to the construction and maintenance of a temporary railroad for private use across Saratoga street in East Boston.

It appearing that the board of street commissioners of the city of Boston has granted to the petitioner permission to construct a temporary single track railroad, of three foot gauge, across Saratoga street in East Boston, to be operated by steam power, for the removal of earth for construction purposes only, and that the construction and operation of such railroad across Saratoga street, under suitable restrictions and safeguards, are consistent with the public interests, — it is

Ordered, That the consent of the Commission be hereby given to the construction and maintenance by the petitioner of a temporary railroad track, to be operated by steam power, across Saratoga street

at grade in East Boston, as shown upon a plan on file with the petition.

This consent is given upon the condition that a flagman shall display a flag by day and a lantern by night whenever an engine, car or train is approaching and while it is passing over said crossing, and that no engine, car or train shall cross at a greater speed than four miles an hour.

Attest: CHARLES E. MANN,
SEPTEMBER 12, 1913. [P. S. C. 129] Secretary.

Petition of Thomas Fitzgibbon for consent to the construction and maintenance of railroad for private use across highways in the town of Rockport.

It appearing that the selectmen of the town of Rockport have consented to the construction of the proposed railroad across the highways; that the county commissioners of Essex county have adjudged that public necessity requires that the railroad cross the highways at a level therewith, and that the same is consistent with the public interests, — it is

Ordered, That the consent of the Board be hereby given to the construction and maintenance by the petitioner of a railroad for private use in the transportation of freight, to be operated by steam power upon and across the highways known as Curtis and Granite streets in Rockport, as shown upon a plan on file with the petition, the crossing of said railroad over the tracks of the street railway located in Granite street to be constructed and maintained by the petitioner at its own expense and in a manner satisfactory to the Bay State Street Railway Company, or, if the parties do not agree, in such manner as the Board shall prescribe.

This consent is given upon the condition that a flagman shall display a flag by day and a lantern by night whenever an engine, car or train is approaching and while it is passing over said crossings, and that no engine, car or train shall cross at a greater speed than four miles an hour.

Attest: CHARLES E. MANN,
MAY 14, 1913. [R. R. C. 9342] Clerk.

During the year additional orders have been issued consenting to the construction of railroads for private use in the transportation of freight across highways, as follows:

Beverly, February 15, 1913 — Gove Lumber Company, across Colon street. [R. R. C. 9215]

Blandford, Huntington, August 12, 1913 — Western Massachusetts Contracting Company, across highways in Blandford, and across Blandford street in Huntington. [P. S. C. 70]

Boston, September 19, 1913 — New York, New Haven and Hartford Railroad Company, across West First street, South Boston. [P. S. C. 110]

Cambridge, June 11, 1913 — E. P. Sanderson Company, across Munroe street. [R. R. C. 9370]

Freetown, May 12, 1913 — Crystal Spring Bleaching and Dyeing Company, across Main street. [R. R. C. 9133]

New Bedford, October 24, 1913 — Wamsutta Mills, across Wamsutta and North Front streets. [P. S. C. 155]

New Salem, August 15, 1913 — Springfield Ice and Coal Company, across the public way leading from New Salem to South Athol. [P. S. C. 47]

Pittsfield, May 12, 1913 — General Electric Company, E. D. Jones and Sons Company, Pittsfield Coal Gas Company, across East street near Newell street, crossing the Berkshire street railway at grade. [R. R. C. 9320]

Pittsfield, May 12, 1913 — General Electric Company, four tracks across Dalton road. [R. R. C. 9321]

SAFEGUARDS AT CROSSINGS.

Petition of the Boston and Maine Railroad for approval of form and type of crossing sign for use at grade crossings of highways.

After consideration, — it is

Ordered, That, under the provisions of section 149 of part II of chapter 463 of the Acts of 1906, the approval of the Board be hereby given to the form and type of crossing signs for use at the grade crossings of the Boston and Maine railroad with public ways in this commonwealth, as shown on a blue print marked "Boston & Maine Railroad, Maintenance of Way Dept., Standard Highway Crossing Sign, Scales as shown, From Office Eng'r M. of W., Issue A 3-8-13", on file with the petition.

Attest:

CHARLES E. MANN,

MAY 12, 1913.

[R. R. C. 9334]

Clerk.

Petition of the Boston and Maine Railroad for approval of form and type of crossing signs, or warning boards, at Turners Falls.

After consideration, — it is

Ordered, That the approval of the Commission be hereby given to the form and type of crossing signs, or warning boards, for use on the highway bridges over the canal of the Turners Falls Company, in the village of Turners Falls, in the town of Montague, where Fifth street and Sixth street cross at grade the mill tracks, so-called, of the Boston and Maine Railroad, as specified in the petition and shown on a blueprint marked "Turners Falls Company, canal enlargement, location & details of R. R. crossing signs", dated October 21, 1913, on file therewith.

Attest: ANDREW A. HIGHLANDS,
NOVEMBER 6, 1913. [P. S. C. 217] Secretary.

Petition of the New York, New Haven and Hartford Railroad Company for approval of form and type of crossing sign for use at grade crossings of highways.

After consideration, — it is

Ordered, That, under the provisions of section 149, part II, chapter 463, Acts of 1906, the approval of the Board be hereby given to the form and type of crossing signs for use at the grade crossings of the New York, New Haven and Hartford railroad with public ways in this commonwealth, as shown on a blue print marked "Standard Highway Crossing Sign", dated December 24, 1912, on file with the petition.

Attest: CHARLES E. MANN,
JUNE 27, 1913. [R. R. C. 9433] Clerk.

Petition of the New York, New Haven and Hartford Railroad Company for approval of form and type of crossing signs, or warning boards, at Turners Falls.

After consideration, — it is

Ordered, That the approval of the Commission be hereby given to the form and type of crossing signs, or warning boards, for use on the highway bridges over the canal of the Turners Falls Company,

in the village of Turners Falls in the town of Montague, where Fifth street and Sixth street cross at grade the tracks of the New York, New Haven and Hartford Railroad Company, as specified in the petition and shown on a blueprint marked "Turners Falls Company, canal enlargement, location & details of R. R. crossing signs", dated October 21, 1913, on file therewith.

Attest: ANDREW A. HIGHLANDS,
NOVEMBER 6, 1913. [P. S. C. 218] Secretary.

Petition of residents of Easthampton relative to further protection at certain crossings on the Boston and Maine railroad.

After a public hearing and further consideration, — it is

Ordered, That the protection now furnished between certain hours of the day at the Ferry street and Union street crossings of the Boston and Maine railroad in the town of Easthampton be extended so as to cover the passing of all trains over each of said crossings during the day and night.

This order shall take effect and be in force on and after August 25, 1913.

Attest: ALLAN BROOKS,
AUGUST 12, 1913. [P. S. C. 53] Assistant Secretary.

Petition of residents of Easthampton relative to further protection at certain crossings on the New York, New Haven and Hartford railroad.

After a public hearing and further consideration, — it is

Ordered, That the protection now furnished between certain hours of the day at the Ferry street, Union street and Payson avenue crossings of the New York, New Haven and Hartford railroad in the town of Easthampton be extended so as to cover the passing of all trains over each of said crossings during the day and night.

This order shall take effect and be in force on and after August 25, 1913.

Attest: ALLAN BROOKS,
AUGUST 12, 1913. [P. S. C. 53] Assistant Secretary.

Order of the Commission in the matter of further protection at the grade crossing of Osgood street and the Boston and Maine railroad in the city of Lawrence.

Osgood street in the city of Lawrence is crossed by seven tracks of the Boston and Maine railroad. The crossing is protected both day and night by gates and a gateman, the distance between the gates being about 130 feet, and it is used largely by mill operatives who live on the south side of the railroad tracks and who pass over it in going to and from their work in the morning, at noon and at night.

The Commission is of the opinion that public necessity requires further protection at this crossing, and it is

Ordered, That the Boston and Maine Railroad be required to place an additional man at the Osgood street crossing of its railroad in the city of Lawrence from 6.15 A.M. to 7.00 A.M., from 12 M. to 1.00 o'clock P.M. and from 5.15 P.M. to 6.15 P.M. on week days.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 233] *Secretary.*

Petition of Andrew J. Rady and others for protection of crossing at the Gleasondale station on the Fitchburg division of the Boston and Maine railroad in the town of Stow.

After a public hearing and view, and further consideration, — it is

Ordered, That the grade crossing on the Marlborough branch of the Fitchburg division of the Boston and Maine railroad, just west of the Gleasondale station, in the town of Stow, be protected by a flagman during the passing of all trains each day, beginning with the first passenger train in the morning and ending with the last passenger train in the evening.

Attest: CHARLES E. MANN,
JUNE 9, 1913. [R. R. C. 9281] *Clerk.*

Recommendation of the board of railroad commissioners relative to the operation of trains on the Milton branch of the New York, New Haven and Hartford railroad.

After consideration, the Board recommends that all trains passing over the Milton branch of the New York, New Haven and

Hartford railroad, between the westerly line of Neponset avenue and the connection of this branch with the main line tracks north of the Neponset station, in the city of Boston, shall not be operated at a higher rate of speed than four miles per hour, and shall be immediately preceded by a flagman displaying a flag by day and a lantern by night for the protection of persons crossing said track.

By the Board,

CHARLES E. MANN,

MAY 26, 1913. [R. R. C. 9375]

Clerk.

Recommendation of the board of railroad commissioners relative to protection at certain crossings on the New York, New Haven and Hartford railroad in the town of Hull.

The Nantasket Beach branch of the New York, New Haven and Hartford railroad crosses at grade certain travelled ways in the town of Hull. These ways are located in a portion of the town which has a large population during the summer months, but very few residents during the remainder of the year. While these ways have not been laid out as public highways across the railroad location, they are extensively used for public travel during the summer season.

The Board therefore recommends that, during such portion of the year as the Nantasket Beach Steamboat Company maintains a steamboat service between Boston and the town of Hull, the New York, New Haven and Hartford Railroad Company cause flagmen to be maintained at the crossing known as Kenberma street, near Kenberma station, at the crossing known as A street, near Waveland station, and at the crossing known as L street, near Bayside station, in said town, who shall display the proper precautionary day and night signals to warn travellers of the approach of all engines, cars or trains.

At all other crossings in said town which are now protected by gates or a flagman the Board recommends that protection be given during all hours when any engine, car or train is operated, during the same season of the year.

The Board further recommends that during the remainder of

the year all engines, cars or trains approaching any of these crossings in either direction be under control and pass over them at a rate of speed not greater than four miles per hour.

By the Board,

CHARLES E. MANN,
Clerk.

JUNE 5, 1912. [R. R. C. 9392]

Petition of the selectmen of Millis and others for protection at the crossings of Exchange street and Main street and the New York, New Haven and Hartford railroad in that town.

After a public hearing and a view and further consideration, — it is

Ordered, That the New York, New Haven and Hartford Railroad Company maintain a flagman at the crossing of Exchange street and its railroad in the town of Millis, between the hours of 6.45 A.M. and 7.30 P.M. on week days and 9.00 A.M. and 6.30 P.M. on Sundays; this protection to be in addition to the electric bells already installed at said crossing.

With reference to protection at the Main street crossing, a good view may be obtained approaching this crossing in either direction, the principal complaint being in connection with the danger involved by the slight angle at which this street crosses the railroad. The Board recommends to the company that certain changes designed to improve the angle at this crossing be made, in accordance with a blue-print on file in this office.

With these changes carried into effect, the Board does not feel justified in requiring the company to furnish protection at this crossing at this time, and the petition, so far as it relates to the Main street crossing, is therefore dismissed.

By the Board,

CHARLES E. MANN,
Clerk.

MAY 28, 1913. [R. R. C. 9175]

Petition of the selectmen of Plymouth et al. relative to protection at the Nelson street crossing of the New York, New Haven and Hartford railroad in the town of Plymouth.

After a public hearing and view, and further consideration,— it is

Ordered, That a flagman be stationed at the crossing of Nelson street and the New York, New Haven and Hartford railroad in the town of Plymouth each day from six o'clock A.M. to eight o'clock P.M.

This order shall take effect and be in force on and after September 1, 1913.

Attest: CHARLES E. MANN,
AUGUST 25, 1913. [P. S. C. 73] Secretary.

Petition of the selectmen of the town of Sandwich relative to protection at crossing near the East Sandwich station on the New York, New Haven and Hartford railroad in that town.

After a public hearing and view, and further consideration,— it is

Ordered, That the grade crossing near the East Sandwich station on the New York, New Haven and Hartford railroad in the town of Sandwich be provided with flag protection each day during the months of May, June, July, August and September of each year, for the passing of all trains beginning with the first passenger train in the morning and ending with the last passenger train in the evening; said protection to be in addition to the electric bells already installed at this crossing.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 23, 1913. [P. S. C. 294] Secretary.

CERTIFICATES RELATIVE TO ABOLITION OF GRADE CROSSINGS.

Petition of the Attorney-General of the Commonwealth for certificate relative to abolition of grade crossings in Westfield.

After notice and hearing and an examination of the proposed plan for abolishing the grade crossings of the tracks of the Boston

and Albany railroad (New York Central and Hudson River Railroad Company, lessee) and Lee's and Lane's crossings in the town of Westfield, as set forth in the report of the special commission appointed by the Superior Court to consider the matter, and after consideration of the expenditure therein authorized, — it is

Ordered, That the Board hereby certify that in its opinion the adoption of said plan and the incurring of such expenditure are consistent with the public interests and are reasonably required to secure a fair distribution between the different cities, towns and railroads of the commonwealth of the public money appropriated for the abolition of grade crossings, and that such expenditure will not in its judgment exceed the amount to be paid by the Commonwealth under the provisions of law relating thereto.

Attest: CHARLES E. MANN,
MAY 15, 1913. [R. R. C. 9285] Clerk.

Petition of the mayor and aldermen of the city of Taunton for certificate relative to abolition of grade crossings in that city.

After notice and hearing and an examination of the proposed plan for abolishing the grade crossings of Crane avenue, Fremont street, West Britannia street, Danforth street, Tremont street, Granite street, Oak street, Wales street, Porter street, Cohannet street, Winthrop street, Harrison avenue, Somerset avenue, Weir street, Ingell street and Hart street with the main line of the Old Colony railroad (New York, New Haven and Hartford Railroad Company, lessee) running between Mansfield and New Bedford, and of the grade crossings of Weir street, First street and Second street with the main line of the Old Colony railroad (New York, New Haven and Hartford Railroad Company, lessee) running between Raynham and Fall River, all in said city of Taunton, as set forth in the report of the special commission appointed by the Superior Court to consider the matter, and after consideration of the expenditure therein authorized, — it is

Ordered, That the Board hereby certify that in its opinion the adoption of said plan and the incurring of such expenditure are consistent with the public interests and are reasonably required to secure a fair distribution between the different cities, towns and railroads of the commonwealth of the public money appropriated

for the abolition of grade crossings, and that such expenditure will not in its judgment exceed the amount to be paid by the Commonwealth under the provisions of law relating thereto.

Attest: CHARLES E. MANN,
MAY 14, 1913. [R. R. C. 9330] Clerk.

CERTIFICATE AS TO EXPENDITURE.

Petition of the Boston and Maine Railroad for certificate relating to expenditures in the alteration of the crossing of its railroad and Main street in Georgetown.

After notice and hearing and further investigation, — it is
Ordered, That the Commission hereby certify that expenditures to the amount of twelve thousand eight hundred forty-two dollars and sixty-three cents (\$12,842.63) have been legally and properly made in the abolition of the crossing of Main street and the Boston and Maine railroad at grade in the town of Georgetown, according to the agreement made between the railroad company and the selectmen of said town under the provisions of section 41, part I, chapter 463, Acts of 1906, and approved by the board of railroad commissioners on April 7, 1913.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 3, 1913. [P. S. C. 225] Secretary.

CHANGE OF GRADE OF RAILROADS.

Petition of the mayor and aldermen of the city of Taunton for consent to changes in the grades of the Old Colony railroad in that city.

It appearing that certain changes in the grades of the Old Colony railroad (New York, New Haven and Hartford Railroad Company, lessee) in the city of Taunton are incidental to the plan adopted by the special commission for the abolition of the grade crossings of Crane avenue, Fremont street, West Britannia street, Danforth street, Tremont street, Granite street, Oak street, Wales street, Porter street, Cohannet street, Winthrop street, Harrison avenue, Somerset avenue, Weir street, Ingell street and Hart street with the main line of the Old Colony railroad (New York, New Haven

and Hartford Railroad Company, lessee) running between Mansfield and New Bedford, and of the grade crossings of Weir street, First street and Second street with the main line of the Old Colony railroad (New York, New Haven and Hartford Railroad Company, lessee) running between Raynham and Fall River, in the city of Taunton, after notice and hearing and full consideration, — it is

Ordered, That the consent of the Board be hereby given to the proposed changes in the grades of the Old Colony railroad in the city of Taunton, as apparently necessary if the plan adopted by the special commission is to be carried out.

Attest: CHARLES E. MANN,
MAY 14, 1913. [R. R. C. 9330] Clerk.

ALTERATION OF CROSSINGS.

Petition of the Boston and Albany Railroad Company that the Board prescribe the manner and limits within which alterations shall be made in the bridge at the crossing of its tracks at North Beacon street (Boston and Albany bridge No. 21), in the city of Boston, under the provisions of section 23, part II, chapter 463 of the Acts of 1906, and amendments.

It appearing, after public notice and hearing all parties interested, that said bridge is at a crossing of the public way known as North Beacon street and the Boston and Albany railroad, in the city of Boston, and that it is necessary for the security and convenience of the public that an alteration should be made in said bridge, which does not involve the abolition of a crossing at grade, for the purpose of rebuilding said bridge and of making certain structural changes for the purpose of strengthening or improving it; and it further appearing that the work is to be done by and at the expense of the railroad company, — it is

Ordered, That said North Beacon street bridge be altered and rebuilt in the manner and within the limits hereinafter described: —

1. The present underclearance shall not be lowered.
2. The present abutments are to remain unchanged except for such repairs as may be necessary to suit the new superstructure.
3. The present superstructure supporting the tracks of the Boston and Albany railroad is to be removed. On the present abutments is to be placed a new superstructure consisting of longitudinal steel

girders. Between these girders concrete waterproofed slabs are to be built to protect the highway beneath the bridge. A new timber deck is to be placed over the structure.

The work is to be done in accordance with a plan entitled "General Steel Plan. Boston & Albany R.R. (N. Y. C. & H. R. R.R. Co., Lessee) Bridge No. 21, Boston Division. Over North Beacon Street, Brighton, Mass.", signed by A. D. Case, engineer of structures, and F. B. Freeman, chief engineer, dated Boston, April, 1913, signed by and filed with the records of this Board and made a part hereof.

The details of said bridge shall be carried out and the whole work shall be completed to the satisfaction of this Board.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

JUNE 18, 1913.

[R. R. C. 9369]

Commissioners.

Appeal of the directors of the Boston and Albany Railroad Company and the directors of the Boston and Maine Railroad from a decision of the board of aldermen of the city of Chelsea, sitting as county commissioners, relative to alterations in the bridge known as bridge No. 332, on Washington avenue in said city.

WOODWARD HUDSON for Boston and Albany Railroad Company.

THORNTON ALEXANDER for Boston and Maine Railroad.

F. M. IVES for Bay State Street Railway Company.

SAMUEL R. CUTLER for City of Chelsea.

It appearing, after public notice and hearing all parties interested, that said bridge is at a crossing of the public way known as Washington avenue and the Boston and Albany and Boston and Maine railroads within the city of Chelsea; that the Bay State Street Railway Company, formerly the Boston and Northern Street Railway Company, has a location for tracks upon said bridge, and that it is necessary for the security and convenience of the public that an alteration should be made in said bridge and in the southerly approach thereto, which does not involve the abolition of a crossing at grade, for the purpose of lengthening the bridge and making certain structural changes, — it is

Ordered, That said Washington avenue bridge be altered and rebuilt in the manner and within the limits hereinafter described:

First. — That the present south abutment is to be removed and a new abutment to be built near the southerly location line of the Boston and Albany railroad in order to give room for an additional track.

Second. — In place of the present south abutment shall be constructed a pier for the support of the southerly end of the present bridge and the northerly end of a new span.

Third. — Upon and between the new pier and the new south abutment and at substantially the same grade as the present bridge shall be constructed a span of steel beams or girders embedded in a slab of concrete, with an iron railing on each side of the street.

Fourth. — On this span a suitable paving is to be laid and sidewalks built of a width similar to those on the present bridge.

Fifth. — The present grade of the street shall be raised about one (1) foot four (4) inches at the new southerly abutment and sloped back to grade at a point about two hundred (200) feet south of the new southerly abutment to form a proper approach to the new span. Where necessary, suitable retaining walls shall be built to support the street at its new grade.

Sixth. — After the grade is raised, the surface of the roadway and sidewalk is to be repaved with brick similar to the present conditions.

Seventh. — The new span shall be designed to carry in addition to its own weight the following live loads:

On each car track a 50-ton passenger street car, each truck with a wheel base of five (5) feet, wheel base of the car twenty-five (25) feet.

On any part of the roadway, outside of the car tracks and sidewalks, a uniformly distributed load of 100 lb. per square foot, either alone or in conjunction with street cars, and covering all of the roadway not occupied by street cars.

As an alternate loading, instead of the above, there may be used a single twenty-ton wagon loaded with ten tons per axle on wheel base 6' x 12', the wagon occupying a space 10' wide by 20' long; in conjunction with this special loading a uniformly distributed load is to be used 100 lb. per square foot, covering the space not occupied by the wagon.

The work is to be done in accordance with plan dated February, 1911, issue No. 1, of January 17, 1913, entitled "Scheme III, General Plan and Cross Sections, Boston & Albany R.R., N. Y. C.

& H. R. R.R. Co., Lessee, Bridge No. 332, Boston Division, Grand Jct. Branch, Washington Avenue, Chelsea, Mass.", and plan dated October, 1912, issue No. 2, March 11, 1913, entitled "Scheme III, Plan of Street Changes, Boston & Albany R.R., N. Y. C. & H. R. R.R. Co., Lessee, Bridge No. 332, Boston Division, Grand Jct. Branch, Washington Avenue, Chelsea, Mass.", both plans signed by W. F. Steffens, engineer of structures, and F. B. Freeman, chief engineer, which are signed by this Board, filed with the records of this Board and made a part hereof to which the whole of this construction is intended to conform. The details of said bridge shall be carried out, and the whole work shall be completed to the satisfaction of this Board and in accordance with the specifications for bridges carrying electric railways adopted by this Board.

During the prosecution of the work, travel on the highway shall not be entirely interrupted, but one-half of the street and one track of the street railway company shall be kept open for travel.

Eighth. — The clear headroom above the tracks of the railroad shall remain unchanged and shall nowhere be less than fifteen (15) feet six (6) inches under the new span, the grade of the railroad to remain unchanged.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

JUNE 10, 1913.

[R. R. C. 8913]

Commissioners.

Petition of the Boston and Albany Railroad Company for approval of alterations of crossing of a public way and railroad in the town of West Springfield.

It appearing, after notice and a hearing, that the board of selectmen of the town of West Springfield and the directors of the Boston and Albany Railroad Company are of opinion that it is necessary for the security and convenience of the public that certain alterations be made in the crossing of Main street and the Boston and Albany railroad in the town of West Springfield; that they are agreed upon the character of the alterations to be made and that an instrument in writing specifying the manner and limits within which said alterations shall be made, the party by whom the work shall be done, the general method of construction and apportionment of cost has been duly executed by the chairman of the board

of selectmen of the town of West Springfield and by the president of the railroad company, a copy of which agreement is as follows :

THIS AGREEMENT made this first day of April, 1913, by and between the selectmen of the town of West Springfield, a municipal corporation duly established under the laws of the commonwealth of Massachusetts, and the directors of the Boston and Albany Railroad Company, a corporation duly established under the laws of said commonwealth :

Witnesseth : That whereas the selectmen of said town of West Springfield and the directors of said railroad corporation are of the opinion that it is necessary for the security and convenience of the public that certain alterations, not requiring the abolition of a crossing at grade, be made in the crossing of a public way in said town of West Springfield, known as Main street, and said railroad and in the bridge at said crossing, it is mutually agreed that such alterations be made within the manner and limits hereinafter specified :

The existing structure, consisting of a through plate girder bridge of three spans for double track, supported on three columns on each curb and providing for one span over the roadway and one span over each side walk, is to be extended for an additional track, the extension comprising an extra line of girders thirteen (13) feet six (6) inches from the centre line of the old girder to the centre line of the new girder and supported on an additional column placed at each curb.

The main abutments are to be extended and are to be constructed of rock face ashlar stone masonry.

The new construction is to be similar to that of the existing bridge and the clear distance between curbs and the clear side walk width shall remain the same.

The work is to be carried out in accordance with plans entitled "Steel Plan for Extension of Third Track, Boston & Albany Railroad, N. Y. C. & H. R. R.R. Co., Lessee, Bridge No. 112, Albany Division over Main Street at West Springfield," dated Boston, Oct., 1912, and "Masonry Plan for Extension of Third Track, Boston & Albany R.R., N. Y. C. & H. R. R.R. Co., Lessee, Bridge No. 112, Albany Division over Main Street at West Springfield," Sheet No. 1 of 2, dated Boston, December, 1912, both plans signed by W. F. Steffens, engineer of structures and F. B. Freeman, chief engineer, copies of which are hereto annexed.

After the completion of the work herein ordered, the bridge and its abutments shall be maintained and kept in repair by said railroad company; said Main street shall be maintained and kept in repair by the town of West Springfield; and it is further agreed that all of the work herein specified shall be done by said railroad corporation and the total expense thereof shall be borne by said railroad corporation.

In witness whereof, this agreement is signed on behalf of said town

of West Springfield by the chairman of the selectmen, authorized by the selectmen, and on behalf of said railroad corporation by its president, authorized by its directors, the day and year first above written.

THE SELECTMEN OF WEST SPRINGFIELD,
By JOHN J. LYSAGHT,
Chairman.

THE DIRECTORS OF THE BOSTON & ALBANY
RAILROAD COMPANY,
By C. S. SARGENT,
President.

It is *Ordered*, That the approval of the Board be hereby given to the agreement and to the alterations therein set forth as necessary for the convenience and security of the public.

Attest: CHARLES E. MANN,
JUNE 27, 1913. [R. R. C. 9378] *Clerk.*

Petition of the Boston and Maine Railroad for approval of alteration of crossing of Main street and railroad in Georgetown.

GEORGE S. SELFRIDGE for Boston and Maine Railroad.

ROBERT F. METCALF for selectmen of Georgetown.

FREDERIC B. GREENHALGE for Commonwealth.

It appearing, after notice and hearing, that the selectmen of the town of Georgetown and the directors of the Boston and Maine Railroad are of opinion that it is necessary for the security and convenience of the public that an alteration be made in the crossing at grade of Main street and the tracks of the Boston and Maine railroad in Georgetown, by which said crossing shall be discontinued and a new way built in substitution therefor; that they are agreed upon the character of the alteration to be made, and that an instrument in writing specifying the manner and limits within which said alteration shall be made, the party by whom the work shall be done, the general method of construction and the apportionment of cost, has been duly executed by the selectmen of the town of Georgetown and by the president of the Boston and Maine Railroad, a copy of which agreement is as follows:

AGREEMENT FOR THE ABOLITION OF THE GRADE CROSSING BETWEEN MAIN STREET AND THE TRACK OF THE BOSTON AND MAINE RAILROAD IN THE TOWN OF GEORGETOWN.

Whereas, there is a certain grade crossing in the town of Georgetown, in the county of Essex and commonwealth of Massachusetts, by which Main street, so called, a public way, crosses at grade the railroad track of the Boston and Maine railroad, as shown on a plan entitled: — "Boston and Maine Railroad, Portland Div. (West) Georgetown Branch. Elimination of grade crossing Main street, Georgetown, Mass. Scale 1" = 40'. From the Office of Engineer of Construction. Approved F. C. Shepherd, Engr. of Constr. Approved David Curtin, Eng. and Rd. Master, Bay State Street Railway Co. Issue 'C' 1-31-13," which said plan is hereby referred to as a part of this agreement;

And, whereas, the selectmen of the said town of Georgetown and the directors of the above named railroad corporation are of the opinion that it is necessary for the security and convenience of the public that an alteration should be made in such crossing, in the approaches thereto, and in the location of the said public way at such crossing, and that such crossing should be discontinued with building a new way in substitution therefor, and they have agreed as to the alterations which should be made;

Now, therefore, in pursuance of the provisions of the Act of 1906, chapter 463, part 1, section 41, and the acts in amendment thereof and in addition thereto, this instrument in writing is signed in behalf of the said town of Georgetown by the chairman of the selectmen of said town, authorized by the selectmen thereof, and by the president of the Boston and Maine Railroad, authorized by its directors, specifying the manner and limits within which the alteration shall be made, and by which party the work shall be done, the general method of construction, the grades of the railroad and public way, and also what land or other property it is necessary to take, and what portion of the existing way is to be discontinued, and how the cost thereof shall be apportioned between the said town and the said railroad corporation.

Alterations in Highway.

Main street, at the crossing of the Georgetown branch of the Boston and Maine railroad, in Georgetown, shall be raised; the grade of the centre line shall be as follows: Beginning at a point three hundred and fifty (350) feet westerly from the centre line of said Georgetown branch, measured on the centre line of said substitute way; thence ascending easterly with a gradient not exceeding six feet per one hundred feet to a point thirty-eight and two one-hundredths (38.02) feet.

westerly from the centre line of said Georgetown branch, measured on the centre line of said substitute way; thence level over the bridge hereinafter mentioned to a point twenty and twenty-two one-hundredths (20.22) feet easterly from the centre line of said Georgetown branch measured on the centre line of said substitute way; thence descending easterly with a gradient not exceeding six feet per one hundred feet to a point four hundred (400) feet easterly from the centre line of said Georgetown branch measured on the centre line of said substitute way.

The elevation on the centre of said bridge to be twenty-one (21) feet above the tops of the rails of the said Georgetown branch at their present grade. The roadway on the raised portion of Main street and said substitute way shall not be less than thirty-six (36) feet between fences.

All highways, the construction or re-grading of which is provided for herein, shall have a six (6) foot gravel sidewalk on the northerly side, with four (4) foot cobble gutter and sixteen (16) feet of macadam roadway suitably crowned.

Bridge.

The said substitute way shall be carried over the railroad tracks on a bridge of one span proportioned in accordance with specifications for bridges carrying electric railways adopted by the Massachusetts railroad commission, revised to August, 1908.

The bridge shall be thirty-six feet wide between fences and the clear headroom between the under side of bridge and top of rails shall be nowhere less than eighteen (18) feet. The bridge shall be supported on abutments of stone or concrete located as shown on plan. Suitable wing walls shall be built on the abutments to hold the earth slopes of the highway embankment.

Fills.

All fills on Main street and said substitute way shall be of earth with side slopes one and one-half horizontal to one vertical.

Fences.

Substantial fences shall be built on Main street and substitute way wherever the safety of the public may require such protection.

Grade Connection.

Suitable vertical curves shall be used at all changes in grade.

Alterations in Way marked "A."

That part of the road marked "A" on the accompanying plan, in Georgetown, lying within the location of said Georgetown branch, is hereby discontinued.

Land taken for Highway Purposes.

To make the alterations hereby prescribed it is necessary to take the following described parcels of land for highway purposes, which parcels of land are hereby taken for such purposes.

Parcel H-1, supposed to belong to the heirs of George Weston, bounded and described as follows:—Beginning at the intersection of the westerly side line of location of said Georgetown branch and the southerly side line of said substitute way; thence running north $88^{\circ} 27' 35''$ west by the southerly side line of said substitute way two hundred ninety-nine and ninety-one one-hundredths (299.91) feet to the southerly side line of Main street; thence north $72^{\circ} 27' 27''$ east by the southerly side line of Main street seventy-six and twenty-two one-hundredths (76.22) feet; thence north $67^{\circ} 55' 4''$ east, still by the southerly side line of Main street, twenty-seven and sixty-five one-hundredths (27.65) feet to the northerly side line of said substitute way; thence south $88^{\circ} 27' 35''$ east by the northerly side line of said substitute way one hundred sixty-eight and eighty-six one-hundredths (168.86) feet to said westerly side line of location; thence south $41^{\circ} 33' 48''$ east by said westerly side line of location forty-nine and thirty-one one-hundredths (49.31) feet to the point of beginning; containing eight thousand three hundred and fifty-four (8,354) square feet.

Parcel H-2, supposed to belong to Charles Weston, bounded and described as follows:—Beginning at the intersection of the easterly side line of location of said Georgetown branch, and the northerly side line of said substitute way; thence running south $88^{\circ} 27' 35''$ east by the northerly side line of said substitute way two hundred fourteen and ninety one-hundredths (214.90) feet to the southerly side line of Main street; thence south $66^{\circ} 55' 37''$ east, by the southerly side line of Main street, sixty-two and sixty-three one-hundredths (62.63) feet; thence south $62^{\circ} 25' 35''$ east, still by the southerly side line of Main street, eighty-three and eighty-seven one-hundredths (83.87) feet to the intersection of the southerly side line of said substitute way and the southerly side line of Main street; thence running northwesterly curving to the left, with a radius of four hundred (400) feet by the southerly side line of said substitute way one hundred thirty-eight and forty-four one-hundredths (138.44) feet; thence north $88^{\circ} 27' 35''$ west, still by the southerly side line of said substitute way, one hundred seventy-nine and nine one-hundredths (179.09) feet to said easterly side line of location; thence north $40^{\circ} 31' 6''$ west, by said easterly side line of location, five and twenty-five one-hundredths (5.25) feet; thence north $41^{\circ} 33' 48''$ west, still by said easterly side line of location, forty-three and ninety-seven one-hundredths (43.97) feet to the point of beginning; containing nine thousand two hundred and sixteen (9,216) square feet.

Taking of Land for Slopes.

Wherever, in the execution of the work hereby prescribed, it is necessary to make slopes, either by excavation or embankment on abutting land, the land covered by such slopes is taken for highway purposes, subject to any use thereof which does not interfere with the maintenance of the way at the grades and widths hereby prescribed; and such land is substantially shown on accompanying plan.

Land taken for Slopes.

Parcel S-1, supposed to belong to the heirs of George Weston bounded and described as follows:—Beginning at the intersection of the westerly side line of location of said Georgetown branch and the northerly side line of said substitute way; thence north $88^{\circ} 27' 35''$ west, by the northerly side line of said substitute way, one hundred sixty-eight and eighty-six one-hundredths (168.86) feet to the southerly side line of Main street; thence north $67^{\circ} 55' 4''$ east, by the southerly side line of Main street, twenty-three and eighty-three one-hundredths (23.83) feet; thence north $86^{\circ} 39' 34''$ east, by other land of the heirs of George Weston, one hundred twenty-eight and seventy one-hundredths (128.70) feet to said westerly side line of location; thence south $40^{\circ} 36' 8''$ east, by said westerly side line of location seventeen and fifteen one-hundredths (17.15) feet; thence south $41^{\circ} 33' 48''$ east, still by said westerly side line of location, ten and sixty-five one-hundredths (10.65) feet to the point of beginning; containing two thousand two hundred and twenty-two (2,222) square feet.

Parcel S-2, supposed to belong to the heirs of George Weston, bounded and described as follows:—Beginning at the intersection of the westerly side line of location of said Georgetown branch and the southerly side line of said substitute way; thence south $41^{\circ} 33' 48''$ east, by said westerly side line of location, thirty-nine and three one-hundredths (39.03) feet; thence north $85^{\circ} 18' 14''$ west, by other land of the heirs of George Weston, three hundred fifty-two and thirty-nine one-hundredths (352.39) feet to the southerly side line of Main street; thence north $72^{\circ} 27' 27''$ east, by the southerly side of Main street, twenty-seven and eighty-three one-hundredths (27.83) feet to the southerly side line of said substitute way; thence south $88^{\circ} 27' 35''$ east, by the southerly side line of said substitute way, two hundred ninety-nine and ninety-one one-hundredths (299.91) feet to the point of beginning; containing six thousand and ninety-nine (6,099) square feet.

Parcel S-3, supposed to belong to Charles Weston, bounded and described as follows:—Beginning at the intersection of the easterly side line of location of said Georgetown branch and the northerly side line of said substitute way; thence north $41^{\circ} 33' 48''$ west, by said easterly side line of location, forty-six and fifty-seven one-hundredths

(46.57) feet; thence south $83^{\circ} 58' 44''$ east, by other land of Charles Weston, two hundred and ninety-five one-hundredths (200.95) feet to the southerly side line of Main street; thence south $66^{\circ} 55' 37''$ east by the southerly side line of Main street forty-nine and eighty-six one-hundredths (49.86) feet to the northerly side line of said substitute way; thence north $88^{\circ} 27' 35''$ west, by the northerly side line of said substitute way, two hundred fourteen and ninety one-hundredths (214.90) feet to the point of beginning; containing five thousand one hundred and twenty-two (5,122) square feet.

Parcel S-4, supposed to belong to Charles Weston, bounded and described as follows:—Beginning at the intersection of the easterly side line of location of said Georgetown branch and the southerly side line of said substitute way; thence south $88^{\circ} 27' 35''$ east, by the southerly side line of said substitute way, one hundred seventy-nine and nine one-hundredths (179.09) feet; thence curving to the right, with a radius of four hundred (400) feet, still by the southerly side line of said substitute way, one hundred thirty-eight and forty-four one-hundredths (138.44) feet to the southerly side of Main street; thence north $86^{\circ} 41' 43''$ west, by other land of Charles Weston, three hundred two and four one-hundredths (302.04) feet to said easterly side line of location; thence north $40^{\circ} 31' 6''$ west, by said easterly side line of location, nineteen and fifty-three one-hundredths (19.53) feet to the point of beginning; containing four thousand one hundred and eighty-two (4,182) square feet.

Plan.

The alterations hereinbefore described are shown upon a plan, made a part of this agreement, entitled "Boston and Maine Railroad, Portland Div. (West) Georgetown Branch. Elimination of Grade Crossing, Main street, Georgetown, Mass. Scale $1'' = 40'$. From Office of Engineer of Construction. Approved, F. C. Shepherd, Engr. of Constr. Approved, David Curtin, Eng. and Rd. Master, Bay State Street Railway Company. Issue 'C,' 1-31-13."

Performance of Work.

The Boston and Maine Railroad shall furnish all the materials and do all the work necessary to accomplish the above described alteration.

Apportionment of Expense.

The total cost of the alterations, work, and damages as aforesaid, including the cost of any of the necessary hearings, the expenses of the Board and its necessary agents, and of the auditor, as between the town and the railroad company, shall be paid entirely by the Boston and Maine Railroad, and the Boston and Maine Railroad shall be entitled to receive from the Commonwealth twenty per cent. (20%) of said total cost.

Signed in behalf of the town of Georgetown by the chairman of the selectmen, duly authorized by the selectmen of said town of Georgetown, and by the president of the Boston and Maine Railroad, duly authorized by its directors. Dated February 3rd, 1913.

JAMES DONOVAN,
Chairman of the Selectmen of Georgetown.

C. S. MELLEN,
President of the Boston and Maine Railroad.

It is *Ordered*, That the approval of the Board be hereby given to the agreement and to the alterations therein set forth as necessary for the convenience and security of the public, but said approval is given upon the express condition that the Commonwealth shall not pay any part of the amount expended for fitting the approaches and bridge referred to in said agreement for or with street railway tracks, or for any work required for or due to the construction of said street railway.

Attest: CHARLES E. MANN,
APRIL 7, 1913. [R. R. C. 9244] Clerk.

*Petition of the New York, New Haven and Hartford Railroad
Company for approval of alteration of crossing of highway
and railroad in Boston.*

It appearing after notice and hearing, that the mayor and city council of the city of Boston and the directors of the New York, New Haven and Hartford Railroad Company are of opinion that it is necessary for the security and convenience of the public that an alteration be made in the crossing at Southampton street in the city of Boston where the highway passes under the railroad of the New York, New Haven and Hartford Railroad Company; that they are agreed upon the character of the alteration to be made, and that an instrument in writing specifying the manner and limits within which said alteration shall be made, the party by whom the work shall be done, the general method of construction and the apportionment of cost, has been duly executed by the mayor of the city of Boston and by the president of the New York, New Haven and Hartford Railroad Company, a copy of which agreement is as follows:

**AGREEMENT FOR ALTERATION OF CROSSING OF SOUTHAMPTON STREET
WITH THE RAILROAD IN THE CITY OF BOSTON.**

Whereas there is a certain highway in the city of Boston known as Southampton street which crosses underneath the railroad of the New York, New Haven and Hartford Railroad Company, and the mayor and council of said city and the directors of said railroad company are of the opinion that it is necessary for the security and convenience of the public that an alteration be made in said crossing by which the highway shall be widened, and have agreed as to the alteration which shall be made;

Now, therefore, in pursuance of the provisions of the acts of 1906, chapter 463, part I, section 41, this agreement in writing is made and signed in behalf of the city of Boston by the mayor thereto duly authorized, and in behalf of said railroad company by its president thereto duly authorized, specifying the manner and limits within which the alteration shall be made, by whom the work shall be done, the general method of construction, and how the cost shall be borne.

Alteration in Highway.

The highway known as Southampton street shall be altered so as to cross underneath the railroad with a full width of seventy feet as follows: By widening the same upon land of said railroad company from the northerly side thereof northerly about ten feet to a line coinciding with the prolongation of the present northerly line of Southampton street on each side of the property of said railroad company. Such alteration and widening shall be made entirely upon the land of said railroad company.

Any structure of the railroad company, including the abutment and fill within the lines of the street as thus widened, shall be removed. The grade of the highway shall be so lowered that the top of the crown of the highway and the top of the curb stones shall be sixteen feet seven and one-half inches below base of rail of the railroad tracks as they now are and are to remain in future. Such new grade of the street shall extend out to the limits thirty feet distant on each side of the center line of location of the railroad company. The clear headroom from crown of the roadway to the lowest part of the new bridge shall be fourteen feet four and one-half inches.

Bridge and Abutments.

In place of the abutment to be removed there shall be built a new masonry abutment with its face conforming to the new northerly side-line of the street. The entire street shall be spanned by a steel bridge

carrying two tracks. Said bridge shall be in accordance with said railroad company's general specifications for street railroad bridges; and is to be supported by steel columns resting upon pier foundations at sidewalk lines on each side of the street.

Plan.

The above work shall be done substantially in accordance with plan hereto attached, entitled "N. Y., N. H. & H. R.R., Boston Division — Second District, Site plan of Bridge No. 153 Over Southampton St., Boston, 0.84 Miles North of Dudley St. Sta., Boston, Aug. 3rd, 1912. Revised to Oct. 30th, 1912."

Performance of the Work.

Said city shall do all the work necessary in the highway itself, including the new grading, surfacing, sidewalk construction, etc., but excepting the removal of railroad structure from the widened portion, and the construction of pier foundations and steel columns to support the bridge.

Except as last above provided the New York, New Haven and Hartford Railroad Company shall furnish all material and do all the work necessary to accomplish the above alteration.

Apportionment of Cost.

The total cost of the alteration aforesaid, including the cost of any necessary hearings, the expenses, if any, of the board of railroad commissioners and its necessary agents, and the damage on account of taking said strip of land on the northerly side of the street, about ten feet wide and running the width of the railroad company's right of way about eighty-four feet, which land shall be reckoned at the value of one dollar per square foot, shall be borne by the city of Boston, provided that in the accounting between said city and said railroad company said city shall be credited with the cost of foundations of the sidewalk supports on the southerly side of the street, and also with the replacement value of a bridge of the length of the present structure, proportioned in accordance with the railroad company's general specifications for steel railroad bridges, less however, the estimated value of the present old bridge, which is agreed upon as one thousand dollars. Said replacement value is to be found by estimating the structural steel work required at two hundred thirty-five thousand pounds, this to be rated at the price per pound which shall be paid for the new bridge hereinbefore provided for, erected in place.

Signed in behalf of the city of Boston by the mayor thereto duly authorized, and in behalf of the New York, New Haven and Hartford Railroad Company by its president thereto duly authorized.

CITY OF BOSTON,

By JOHN F. FITZGERALD,
Mayor.

THE NEW YORK, NEW HAVEN AND HARTFORD
RAILROAD COMPANY,

By J. H. HUSTIS,
President.

It is *ordered*, That the approval of the Commission be hereby given to the agreement and to the alteration therein set forth, as necessary for the convenience and security of the public.

Attest: ANDREW A. HIGHLANDS,
NOVEMBER 18, 1913. [P. S. C. 222] Secretary.

Petition of the New York, New Haven and Hartford Railroad Company for approval of alteration of crossing at grade of highway and railroad at Sagamore station in the town of Bourne.

F. A. FARNHAM for petition.

F. B. GREENHALGE for Commonwealth.

J. LOTHROP MOTLEY for Boston, Cape Cod and New York Canal Company.

It appearing, after notice and hearing, that the selectmen of the town of Bourne and the directors of the New York, New Haven and Hartford Railroad Company and of the Old Colony Railroad Company are of the opinion that it is necessary for the security and convenience of the public that an alteration be made in the crossing at grade of County road, near Sagamore station, and the tracks of the Old Colony railroad (New York, New Haven and Hartford Railroad Company, lessee) in the town of Bourne, by which a portion of said County road shall be discontinued and a new way, not at grade, shall be built in substitution therefor; that they are agreed upon the character of the alteration to be made, and that an instrument in writing specifying the manner and limits within which said alteration shall be made, the party by whom the work

shall be done, the general method of construction and apportionment of cost, has been duly executed by the chairman of the selectmen of Bourne and by the presidents of the railroad corporations, a copy of which agreement is as follows:

AGREEMENT FOR ALTERATION OF CROSSING OF COUNTY ROAD WITH THE
RAILROAD TRACKS IN THE TOWN OF BOURNE, MASSACHUSETTS.

Whereas there is a certain highway in the town of Bourne known as County road, which crosses at the same level the railroad of the Old Colony Railroad Company, leased to and operated by The New York, New Haven and Hartford Railroad Company, just east of Sagamore station, so called, and the directors of said railroad companies and the selectmen of said town are of the opinion that it is necessary for the security and convenience of the public that an alteration shall be made in said crossing by which a portion of said County road shall be discontinued and a new way not at grade shall be built in substitution therefor, and have agreed as to the alteration which shall be made:

Now, therefore, in pursuance of the provisions of the acts of 1906, chapter 463, part I, section 41, this agreement in writing is made and signed in behalf of the Town of Bourne by the chairman of selectmen thereunto duly authorized, and in behalf of said railroad companies by their respective presidents thereunto duly authorized, specifying the manner and limits within which the alteration shall be made, by whom the work shall be done, the general method of construction, and how the costs shall be borne.

All that portion of said County road northerly of the southerly line of the Old Colony Railroad Company location and southerly of the northerly line of the property of the Boston, Cape Cod and New York Canal Company is hereby discontinued.

A new way in substitution therefor is hereby laid out, which new way is described as follows:

New Way.

Beginning at a point in the northerly line of Pleasant street, said point being thirty-five (35) feet easterly from a stone bound marking the southwest corner of Sagamore station grounds, thence from above described point S. 70° 3' W. about fifty and two-tenths (50.2) feet to a point marking an angle on the northerly line of Pleasant street; thence S. 66° 42' W. about twenty-two and one-tenth (22.1) feet to a stone bound on the northerly line of Pleasant street, said bound marking southeast corner of land of B. B. Abbe; thence N. 8° 33' E. about one hundred and ninety (190) feet to a point on the southerly side line of Old Colony Railroad Company location, said point being also twenty-five (25) feet from and at right angles to base line of railroad location; thence easterly by said side line three and seventy-five hundredths

(3.75) feet to a point; thence N. $8^{\circ} 33'$ E. about two hundred and sixty-four (264) feet to a point on line between the Keith Car and Manufacturing Company and the Boston, Cape Cod and New York Canal Company; thence easterly by said line about thirty (30) feet to a point; thence S. $8^{\circ} 33'$ W. about two hundred and sixty-four (264) feet to a point in the southerly side line of the railroad location, thence easterly by said side line about three and seventy-five hundredths (3.75) feet to a point; thence S. $8^{\circ} 33'$ W. about one hundred and forty-six (146) feet to a point on line between the Boston, Cape Cod and New York Canal Company and the Old Colony Railroad Company; thence southeasterly by a curved line to the left with a radius of fifteen (15) feet for a distance of about thirty-five (35) feet to a point on the northerly line of Pleasant street, said point being the point of beginning.

The grade of the new way beginning at station 0 shall ascend at the rate of five (5) feet per one hundred feet to the abutment of the railroad bridge; thence shall proceed northerly at a level grade to the end at station 4 plus 40. Suitable vertical curves shall be provided at the intersection of grades. The surface of the driveway from Pleasant street to the abutment of new bridge shall be covered with six (6) inches of macadam. Paved gutters shall be laid two (2) feet wide in the macadamized portion of the street. An abutment shall be built near the southerly line of the Old Colony Railroad Company land as shown on the accompanying plan.

The new way shall be carried over the property of the railroad companies by a pony truss or plate girder through bridge in accordance with specifications approved in writing by the chief engineer of The New York, New Haven and Hartford Railroad Company, and there shall be a clear headroom of eighteen (18) feet between the top of the railroad rails and the under side of the bridge. The new way shall be carried across the property of the Keith Car and Manufacturing Company by a viaduct or approach, consisting of an extension of said bridge for a distance of about thirty (30) feet, and thence consisting of a structure supported on steel trestle bents about fifty (50) feet apart. The roadway floor of said bridge and of said viaduct shall be four (4) inch plank. Sidewalk shall be built on the easterly side of said new way and shall be five (5) feet wide. On the bridge and viaduct the sidewalk floor shall be hard pine two (2) inch thick matched plank. Both sides of the street shall be provided with substantial fences at least five (5) feet high. Over the railroad tracks tight board fences shall be built. The bridge and the viaduct shall be proportioned to carry safely loads of one hundred (100) pounds and eighty pounds, respectively, per square foot or a steam road roller weighing fifteen (15) tons, in addition to the weight of the structure.

Land taken for Highway Purposes.

To make the alterations hereby prescribed it is necessary to take the following described parcels of land and rights in land for highway purposes, which parcels of land and rights in land are hereby taken for such purposes and bounded and described as follows:

Parcel No. 1. — Beginning at a stone bound in the northerly side line of said Pleasant street at land of the Old Colony Railroad Company, thence running S. $70^{\circ} 3' W.$ fifteen and two-tenths (15.2) feet, more or less, to an angle in said side line; thence S. $66^{\circ} 42' W.$, still by said Pleasant street, twenty-two and one-tenth (22.1) feet, more or less, to a stone bound at land now or formerly of Abbe; thence by said Abbe land N. $0^{\circ} 37' W.$ one hundred seventy-eight and four-tenths (178.4) feet, more or less, to a stone bound; thence N. $8^{\circ} 37' E.$, still by said Abbe land, thirteen (13) feet, more or less, to a stone bound at land of the Old Colony Railroad Company; thence by said land of the Old Colony Railroad Company easterly eighty-four and five-tenths (84.5) feet, more or less, to a stone bound; thence S. $16^{\circ} 45' W.$ by said land of the Old Colony Railroad Company one hundred sixty-nine and seven-tenths (169.7) feet, more or less, to the point of beginning, containing twenty-five hundredths (.25) of an acre more or less, and supposed to belong to Boston, Cape Cod and New York Canal Company.

Parcel No. 2. — Beginning at a stone bound on the northerly line of Pleasant street, said bound being about one hundred and seventeen (117) feet westerly from a stone bound at an angle on the northerly side line of Pleasant street, said first named bound being at the south-westerly corner of Sagamore station grounds; thence from last named bound N. $16^{\circ} 45' E.$ for a distance of about twenty-five (25) feet to a point; thence easterly by a curved line to the left with a radius of fifteen (15) feet for a distance of about thirty-five (35) feet to a point on the northerly line of Pleasant street; thence S. $70^{\circ} 3' W.$ on the line of said Pleasant street thirty-five (35) feet to the point of beginning, containing about two hundred (200) square feet, said parcel supposed to belong to the Old Colony Railroad Company.

Parcel No. 3. — The right to pass and repass by means of a bridge or viaduct over land supposed to belong to the Keith Car and Manufacturing Company, together with the right to use said right of way upon and across said bridge or viaduct for all purposes for which streets or highways may be used, and the right to support said bridge or viaduct upon said land by piers, bents or other supports resting upon said land or upon pedestals or other foundations placed therein; the land over which said right of way may be exercised being described as follows: A strip of land thirty (30) feet in width extending from the line dividing the property of the Keith Car and Manufacturing

Company from the property of the Old Colony Railroad Company, north $8^{\circ} 33'$ east to the line dividing the property of said Keith Car and Manufacturing Company from property of the Boston, Cape Cod and New York Canal Company; the center line and width of said parcel coinciding with the center line and width of that portion of the above described new way which crosses land of said Keith Car and Manufacturing Company; together with such land outside the portion thus far described as may be necessary for foundation of the supports above mentioned.

Taking of Land for Slopes.

Whenever in the execution of the work hereby prescribed it is necessary to make slopes by embankment on abutting land, the land covered by such slopes is taken for highway purposes, subject to any use thereof which does not interfere with the maintenance of the way at the grades and widths hereby prescribed; such land being shown substantially on the accompanying plan, and being described as follows:

Parcel No. 1. — Beginning at a point on the northerly line of Pleasant street, said point being about eighty-five (85) feet westerly from stone bound at an angle on northerly side of Pleasant street, said point being about thirty-five (35) feet easterly on the northerly line of Pleasant street from a stone bound marking the southwest corner of Sagamore station grounds, thence westerly from above described point by a curved line to the right with a radius of fifteen (15) feet for a distance of about thirty-five (35) feet to a point in the westerly line of station grounds; thence N. $16^{\circ} 45'$ E. on line between land of Old Colony Railroad Company and Boston, Cape Cod and New York Canal Company, formerly B. B. Abbe, for a distance of about one hundred forty (140) feet to a point on the line of the face of the proposed abutment, said point being five (5) feet southerly from stone bound marking the northeast corner of land belonging to Boston, Cape Cod and New York Canal Company, formerly B. B. Abbe, and the Old Colony Railroad Company; thence southeast from said point on line of abutment ten (10) feet to a point; thence S. 20° W. for a distance of about one hundred and twenty-five (125) feet to a point, thence southerly by a curved line to the left with a radius of fifteen (15) feet for a distance of about thirty-five (35) feet to the point of beginning on the northerly line of Pleasant street, containing about eleven hundred (1,100) square feet, said parcel supposed to belong to the Old Colony Railroad Company.

In General.

Profile and grades of way together with the elevations are made upon the center line of new way.

Plan.

The alterations and details aforesaid are shown on accompanying plan entitled "Proposed Change of County Road, Sagamore, Mass. in the town of Bourne May 1912." Said plan together with all lines, letters, figures and directions thereon are to be taken as a part of this agreement.

Performance of the Work.

The New York, New Haven and Hartford Railroad Company, lessee of the Old Colony Railroad Company, shall do all work heretofore prescribed to be done in accordance with the provisions of this agreement and of the aforesaid accompanying plan.

Apportionment of Cost.

The total cost of the alteration aforesaid, including the cost of any necessary hearings, and the expense of the board of railroad commissioners and its necessary agents shall be borne as follows: The New York, New Haven and Hartford Railroad Company shall pay the sum of twenty thousand dollars (\$20,000) towards such expense, and all the remainder of such expense shall be borne by the Town of Bourne, except the twenty (20) per cent which by law is to be borne by the Commonwealth of Massachusetts.

Signed in behalf of the Town of Bourne by the chairman of selectmen thereunto duly authorized, and in behalf of said railroad companies by their respective presidents thereunto duly authorized.

TOWN OF BOURNE,

By BENJAMIN F. BOURNE,
Chairman of Selectmen.

THE NEW YORK, NEW HAVEN AND HARTFORD
RAILROAD COMPANY,

By C. S. Mellen,
President.

OLD COLONY RAILROAD COMPANY,

By FAYETTE S. CURTIS,
President.

It is *Ordered*, That the approval of the Board be hereby given to the agreement and to the alteration therein set forth as necessary for the convenience and security of the public; the Board being advised that, contemporaneously herewith, the board of harbor and land commissioners and this Board, sitting jointly, will issue another order providing for a bridge across the ship canal now under

construction, said bridge to be in continuation of the structure hereinabove prescribed, and to be connected by suitable approaches with the highways north of said canal.¹

Attest: CHARLES E. MANN,
JANUARY 15, 1913. [R. R. C. 8954] Clerk.

Petition of the New York, New Haven and Hartford Railroad Company for approval of alteration of crossing of highway and railroad in Whately.

It appearing after notice and hearing, that the selectmen of the town of Whately and the directors of the New York, New Haven and Hartford Railroad Company are of opinion that it is necessary for the security and convenience of the public that an alteration be made in the crossing in the town of Whately known as Crafts crossing, where the highway passes under the railroad of the New York, New Haven and Hartford Railroad Company; that they are agreed upon the character of the alteration to be made, and that an instrument in writing specifying the manner and limits within which said alteration shall be made, the party by whom the work shall be done, the general method of construction and the apportionment of cost, has been duly executed by the selectmen of the town of Whately and by the president of the New York, New Haven and Hartford Railroad Company, and assented to by the county commissioners of Franklin county, a copy of which agreement is as follows:

AGREEMENT FOR THE ALTERATION OF A HIGHWAY CROSSING IN THE TOWN OF WHATELY WITH THE RAILROAD OF THE NEW YORK, NEW HAVEN AND HARTFORD RAILROAD COMPANY.

Whereas there is a certain highway in the town of Whately which crosses underneath the railroad of the New York, New Haven and Hartford Railroad Company, and the directors of said company and the selectmen of said town are of the opinion that it is necessary for the security and convenience of the public that an alteration shall be made in said crossing by which the same shall be widened and the grades and elevations of the highway and the railroad tracks shall be altered, and have agreed as to the alterations which shall be made;

Now therefore in pursuance of the provisions of the Acts of 1906,

¹ For this order, see page 420.

chapter 463, part I, section 41, as amended by the statute of 1910, chapter 594, this agreement in writing is made and signed in behalf of said town by the chairman of the selectmen thereunto duly authorized by the selectmen, and in behalf of the directors of said railroad company by their president thereunto duly authorized by the directors, specifying the manner and limits within which the alterations shall be made, by whom the work shall be done, the general method of construction and how the cost shall be borne.

Alterations.

The easterly and northeasterly line of the highway at said crossing is to be altered and relocated as follows:

Beginning at an existing stone bound at the corner in the highway line easterly from the underpass, thence running westerly, at right angles to the center line of the railroad, seventy-four feet, thence northwesterly making an angle of fifty-three degrees with center line of railroad 42.8 feet to an angle in the abutment; thence northwesterly making an angle of thirty-one degrees with the center line of the railroad along the wing wall of the abutment and that line extended 46.24 feet to the present easterly line of the highway.

The westerly or southwesterly line of the highway is to be relocated by discontinuing so much of the highway as lies within the railroad location and southerly or southwesterly of the face of the abutment to be there placed, so that the southwesterly line of the highway across the railroad location shall be thirty feet distant from and parallel with the second described line on the northeasterly side of the highway, that is, the face of the northeasterly abutment.

The alterations in the bridge and crossing are to be as follows: namely — the angle of the main face wall of the abutments with the track above it is to be fifty-three degrees and the underpass to be thirty feet wide between the abutments, measured at right angles with the main face of the abutment walls; the bridge is to be twelve and one-half feet in height in the clear above the surface of the completed roadway. The new abutments and the new railroad bridge over said highway are to be of the kind, quality and strength suitable for said place and up to the standard of first class railroad work of its kind and quality.

It is the intent of this order concerning the relocation of said crossing that from the center of the underpass there shall be a good view of the traveled path of the highway for a distance of one hundred and fifty feet in both directions. The traveled part of the highway is to be worked within that distance and within the location of the highway as best to give such view. The highway at and near the crossing is to be worked to a grade not exceeding three per cent and a width of sixteen feet exclusive of ditches, using the present materials in the roadway.

The alterations in the grade of the railroad and the highway are as follows:

The railroad at the crossing over the said highway shall be raised two feet above its present grade. The highway under said railroad is to be constructed at a level which will provide a clear head room at the underpass of twelve and one-half feet.

The change in the grade of the railroad to the north and south of the crossing and the change in the proposed grade of the highway approaching the underpass are to be as shown on the plan next referred to.

Plan.

The alterations hereinbefore described are shown upon a plan herewith and made a part hereof entitled "N. Y., N. H. & H. R.R., Shore Line Div., Crafts Undercrossing, Bridge No. 84.09, Whately, Mass., July 1910, and proposed grade changes May 24, 1913."

Performance of the Work.

The New York, New Haven and Hartford Railroad Company shall furnish all the material and do all the work necessary to accomplish the above described alterations.

Apportionment of Expense.

The total cost of the alterations as aforesaid, including the cost of any necessary hearings, expenses of the public service commission and its necessary agents, and all damages shall be paid by the New York, New Haven and Hartford Railroad Company, except that the Town of Whately shall reimburse said railroad company to the extent of \$2600.

The Following Pertinent Facts are included by Way of Recital.

Under proceedings had before the county commissioners of Franklin county, and by a special commission duly appointed, whose award was confirmed by decree of the Superior Court (the case being 3291) dated November 21, 1912, certain changes in said crossing were duly ordered. In the course of preparation for carrying out such requirements it became evident to all parties interested that proper drainage had not been adequately provided for, and all parties agreed that the work should be done in accordance with the method hereinbefore set forth, which is substantially identical with that required by said order of the county commissioners, except that the highway and railroad, respectively, are to be raised approximately two feet higher than provided for in said order, and the grades of the railroad and highway are to be adjusted to this alteration as shown on the plan herewith.

As it is believed that the county commissioners were without jurisdiction to order such changes without starting the proceedings from the beginning, and as it was the desire of all parties to avoid the delay and expense of so doing, this agreement has been made which provides for

alterations additional to those provided for in said previous order and award.

By said award it was provided that the County of Franklin should pay eighteen hundred (1800) dollars towards the expense and the Town of Whately the sum of eight hundred (800) dollars. It is now understood that of the \$2600 hereinbefore agreed to be paid by the Town of Whately, the sum of eighteen hundred dollars is to be assumed by and repaid to the Town of Whately by the County of Franklin.

The said New York, New Haven and Hartford Railroad Company agrees that the payments to it by the Town of Whately herein provided for shall be in full satisfaction of the obligation provided for in said former order whereby the county was to pay directly to the said railroad company the sum of eighteen hundred dollars.

Signed in behalf of the selectmen of Whately by the chairman thereto duly authorized, and in behalf of the directors of the railroad company by their president thereto duly authorized.

SELECTMEN OF WHATELY,

By MONTVILLE L. CRAFTS,
Chairman.

Authorized and approved by all the members of the board.

MONTVILLE L. CRAFTS,
H. E. MANNING,
WILLIAM G. SHIPP,
Selectmen of Whately.

NEW YORK, NEW HAVEN & HARTFORD RAIL-
ROAD COMPANY,

By J. H. HUSTIS,
President.

We, the county commissioners of the county of Franklin, on behalf of said county hereby assent to the above agreement and all its provisions including the provisions as to reimbursement of the Town of Whately in the sum of \$1800.

EUGENE B. BLAKE.
OSGOOD L. LEACH.
ALLEN C. BURNHAM.

It is *Ordered*, That the approval of the Commission be hereby given to the agreement and to the alterations therein set forth, as necessary for the convenience and security of the public.

Attest: ANDREW A. HIGHLANDS,
NOVEMBER 13, 1913. [P. S. C. 206] *Secretary.*

Designation of member of the Board for appointment on special commission.

In the matter of the alteration of the crossing of Arch street and the tracks of the Boston and Maine railroad in the town of Greenfield, the Board, acting under the provisions of section 26, part I, chapter 463, Acts of 1906, designates George W. Bishop, one of its members, for appointment by the Superior Court on a special commission to determine the questions named in said section.

For the Board,

CHARLES E. MANN,

FEBRUARY 26, 1913.

[R. R. C. 9252]

Clerk.

During the year, Commissioner Bishop has also been designated for appointment on special commissions in the matter of the alteration of the following crossings on the Boston and Albany railroad:

Brookfield, October 3, 1913 — Bridge No. 79, at Upper River street. [P. S. C. 112]

Dalton, October 3, 1913 — Bridge No. 162, at East Main street. [P. S. C. 72]

Hinsdale, October 3, 1913 — Bridge No. 161, at Cemetery road. [P. S. C. 72]

Newton, October 3, 1913 — Bridge No. 316, at Elliot street; bridge No. 318, at Chestnut street, and bridge No. 322, at Grove street. [P. S. C. 33]

Palmer, June 28, 1913 — Bridge No. 95, at Main street, carrying the tracks of the Springfield street railway. [R. R. C. 9438]

Palmer, July 23, 1913 — Blanchard's crossing. [P. S. C. 6]

Pittsfield, October 3, 1913 — Bridge No. 166, at Beaver street. [P. S. C. 113]

Richmond, May 28, 1913, July 30, 1913 — Bridge No. 191. [R. R. C. 9371]

Springfield, October 24, 1913 — Bridge No. 103, at St. James avenue. [P. S. C. 191]

Washington, October 3, 1913 — Bridge No. 154, at Crozier's crossing. [P. S. C. 72]

Wilbraham, July 23, 1913 — Silver street crossing, Butler's crossing and Collins' crossing. [P. S. C. 6]

Wilbraham, October 24, 1913 — Bridge No. 101, at Moran's crossing. [P. S. C. 192]

Commissioner White has been designated for appointment on special commissions in the matter of the alteration of the following crossings:

Boston, June 18, 1913, July 30, 1913 — North Beacon street and the tracks of the Boston and Albany railroad. [R. R. C. 9369]

Chelsea, June 11, 1913, July 30, 1913 — Washington avenue and the tracks of the Boston and Albany railroad and the Boston and Maine railroad. [R. R. C. 8913]

EXPRESS — RAILROAD.

Petition of the Canton Auto Express Company for recommendation permitting it to engage in express business on certain trains of the New York, New Haven and Hartford railroad between Boston and Canton.

After hearing and further investigation it appears that two competitive companies are now engaged in express business on certain trains of the New York, New Haven and Hartford railroad between Boston and Canton. As the public interests demand the least possible inconvenience and delay to travel, it seems desirable that a limit should be placed upon the number of express companies that are permitted to handle goods upon passenger trains where time and space are necessarily limited.

As it appears that a reasonably adequate express service is now rendered to the residents of the town of Canton, the Commission is unable to find that sufficient cause exists to warrant its issuing a certificate which would permit the installation of the proposed service. The petition is therefore dismissed.

By the Commission,

ANDREW A. HIGHLANDS,

DECEMBER 23, 1913.

[P. S. C. 126]

Secretary.

EXPRESS — STREET RAILWAY.

Petition of the Old Colony Street Railway Company that it be required to act as common carrier of baggage and freight in the town of Weymouth.

Since the filing of this petition the Old Colony Street Railway Company has sold and transferred all its property, rights and franchises to the corporation now known as the Bay State Street Railway Company, and exists no longer as a street railway company to which an order could issue requiring it to act as a common carrier.

It is therefore

Ordered, That this petition be dismissed without prejudice.

Attest: CHARLES E. MANN,
JULY 23, 1913. [P. S. C. 42] *Secretary.*

Petition of the Bay State Street Railway Company for authority to act as a common carrier of newspapers, baggage, express matter and freight in Essex.

The petitioner has obtained from the selectmen of the town of Essex, by an order dated February 25, 1909, authority to conduct the business of a common carrier of newspapers, baggage, express matter and freight within that town.

The order of the selectmen makes their grant subject "to such of the following regulations and restrictions as in the opinion of said board of railroad commissioners public necessity and convenience require," namely:

3. The company shall receive, distribute and deliver baggage, express matter and freight at such suitable places or stations within said town as shall be approved by the board of selectmen.

8. The authority herein granted is given upon the express condition that said company shall rebuild its roadbed and put it in thorough repair

within the limits of the town to the entire satisfaction of the board of selectmen within one year from the date of the granting of this license.

9. The authority herein granted is given upon the express condition that said company shall run all cars through from Gloucester to Beverly or from Beverly to Gloucester, and that there shall be no change of cars for through passengers or passengers from the town of Essex travelling between the above named cities at Ipswich Junction so called or in other words that portion of the road from said Junction to the city of Gloucester shall not be made a branch line.

10. The authority herein granted is given upon the express condition that said company shall place an electric light upon its pole in front of the town hall in Essex.

The statute which applies to such cases as this provides:

A street railway company may become a common carrier of newspapers, baggage, express matter and freight in such cases, upon such parts of its railway, and to such extent, in any city or town, as, after public notice and a hearing, upon the petition of any interested party, the board of aldermen or the selectmen in such city or town and the board of railroad commissioners shall by order approve.

The statute later proceeds to consider the question of regulations and restrictions, and provides that the company acting under the authority above described "shall be subject to such regulations and restrictions as may from time to time be made by the local authorities aforesaid, with the approval of the railroad commissioners."

It is evident that authority over regulations and restrictions is given to the state board in view of the fact that while local boards properly deal with matters that have to do with the local features of an express and freight business, there are interests of the business as a whole involving the rights of different communities to be considered. The regulations and restrictions quoted above fail to provide for the consideration of the interests of this larger public and for that reason are contrary to the intent of the statute and cannot be approved.

The company must provide suitable places and stations within the town for receiving, distributing and delivering baggage and express matter, but the selectmen should not have the exclusive right to decide whether or not the company is providing such places and stations. This is a matter which may be important to the public interests of other cities and towns.

The propriety of the conduct of the company in this particular can be readily submitted to both the local and the state board and proper consideration given to all interests concerned.

The restrictions found in the eighth, ninth and tenth paragraphs of this order, calling for expenditures in road building, the routing of cars and the establishment of electric lights contravene the policy of our laws and are illegal.

It is *ordered*, That the Commission hereby certify that public necessity and convenience require that the Bay State Street Railway Company act as a common carrier upon the lines of railway in Essex named in the order of the selectmen granting said authority, to the extent of receiving, carrying and delivering such baggage and freight described in the schedule on file with the petition as is usually transported by express companies, restricted to exclude beside explosives all articles and commodities the transportation of which may be hereafter prohibited by the commission, upon the understanding that the facilities by which and the manner in which the business is conducted shall be subject to the regulations and restrictions named in the order of the selectmen other than those which have been herein disapproved, and to such further supervision and regulation by this commission from time to time as the public interests may require.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 313] Secretary.

Petition of the Bay State Street Railway Company for authority to act as a common carrier of newspapers, baggage, express matter and freight in Hingham.

The petitioner has obtained from the selectmen of the town of Hingham, by an order dated June 7, 1912, authority to conduct the business of a common carrier of newspapers, baggage, express matter and freight in that town.

After notice and hearing, — it is

Ordered, That the Board hereby certify that public necessity and convenience require that the Bay State Street Railway Company act as a common carrier in the town of Hingham upon the lines of railway named in the order of the selectmen granting said authority, to the extent of receiving, carrying and delivering, in suitable cars to be provided with proper fenders, brakes and safety appliances

from time to time required under the provisions of general laws now or hereafter in force, such baggage and freight, described in the schedule on file with the petition, as is usually transported by express companies, restricted to exclude besides explosives all articles and commodities the transportation of which may be hereafter prohibited by the Board, upon the understanding that the facilities by which and the manner in which the business is conducted shall be subject to supervision and regulation by the Board from time to time as the public interests may require.

Attest: CHARLES E. MANN,
JUNE 19, 1913. [R. R. C. 9402] Clerk.

Petition of the Bay State Street Railway Company for modification of previous orders of the board of railroad commissioners relative to the carrying of baggage and freight in the cities of Lowell, Haverhill, Newburyport and Taunton, and in the towns of Billerica, Burlington, Dracut, Georgetown, Groveland, Hingham, Methuen, Middleton, Newbury, North Reading, Raynham, Rehoboth, Rowley, Seekonk, Tewksbury, West Newbury and Wilmington.

The Bay State Street Railway Company, successor to the Boston and Northern Street Railway Company and the Old Colony Street Railway Company, has heretofore been granted authority to conduct the business of a common carrier of newspapers, baggage, express matter and freight in the city of Taunton and towns of Rehoboth and Seekonk by an order of the board of railroad commissioners, dated March 5, 1906, in the town of Raynham by orders of said Board, dated March 5, 1906, and September 6, 1906, and in the cities of Lowell, Haverhill and Newburyport and the towns of Billerica, Burlington, Dracut, Georgetown, Groveland, Methuen, Middleton, Newbury, North Reading, Rowley, Tewksbury, West Newbury and Wilmington by an order of said Board, dated March 2, 1911; by an order of said Board dated September 13, 1911, the petitioner was authorized to carry coal in the city of Lowell and towns of Dracut, Methuen and Middleton, and by an order of said Board dated June 19, 1913, was authorized to act as a common carrier in Hingham, the schedule of the freight to be carried in said town including coal and crushed stone.

It now appearing, after notice and hearing, that public necessity and convenience require that the Bay State Street Railway Company act as a common carrier upon the lines of railway in said cities and towns to the extent of receiving, carrying and delivering coal and stone, and that the mayors of said cities and the selectmen of said towns have consented to amended schedules so as to permit the carrying of coal and crushed stone in said cities and towns, the orders of the board of railroad commissioners above referred to are hereby so far modified as to permit the carrying of coal and crushed stone in the cities of Lowell, Haverhill, Newburyport and Taunton and in the towns of Billerica, Burlington, Dracut, Georgetown, Groveland, Methuen, Middleton, Newbury, North Reading, Raynham, Rehoboth, Rowley, Seekonk, Tewksbury, West Newbury and Wilmington, in accordance with the amended schedules on file with this petition.

This authority is granted subject to any and all regulations and restrictions now effective in said grants or any of them and without prejudice to any future action of the aldermen of said cities and the selectmen of said towns, respectively, with respect to additional regulations and restrictions that may be made under the provisions of Acts of 1907, chapter 402.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 23, 1913. [P. S. C. 292] Secretary.

Petition of the Bay State Street Railway Company for modification of previous order of the board of railroad commissioners requiring the petitioner to act as a common carrier of baggage and freight in Chelmsford.

The Bay State Street Railway Company, successor to the Boston and Northern Street Railway Company, by an order of the board of railroad commissioners dated September 17, 1910, was required to act as a common carrier of newspapers, baggage, express matter and freight in the town of Chelmsford, to the extent of receiving, carrying and delivering such baggage and freight, described in the schedule on file with the petition, as is usually transported by express companies, restricted to exclude besides explosives all articles and commodities the transportation of which might be hereafter prohibited by the board of railroad commissioners.

It now appearing, after notice and hearing that public necessity and convenience require that the Bay State Street Railway Company act as a common carrier upon the lines of its railway in the town of Chelmsford to the extent of receiving, carrying and delivering coal and stone, and that the selectmen of said town, by an order dated June 14, 1913, have consented to an amended schedule so as to permit the carrying of coal and crushed stone, the order of the board of railroad commissioners, dated September 17, 1910, is hereby so far modified as to permit the carrying of coal and crushed stone in Chelmsford, in accordance with the amended schedule on file with the petition.

This authority is granted subject to the regulations and restrictions contained in the order of the board of railroad commissioners, dated September 17, 1910, requiring the petitioner to act as a common carrier in Chelmsford.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 23, 1913. [P. S. C. 293] Secretary.

Petition of the Berkshire Street Railway Company that it be required to act as a common carrier of baggage and freight in Lenox.

It appearing, after notice and hearing, held under the provisions of chapter 402 of the Acts of 1907, that the Berkshire Street Railway Company has heretofore filed with the selectmen of the town of Lenox a petition for approval of the right to act as a common carrier in that town, and the selectmen having failed to act on said petition within sixty days of the filing thereof, and the Commission being of opinion that the rights petitioned for ought to be granted, — it is

Ordered, That the Commission hereby certify that the public convenience and necessity require the granting of this petition, and therefore that the Berkshire Street Railway Company be required to act as a common carrier upon the lines of its railway in Lenox, to the extent of receiving, carrying and delivering such baggage and freight, described in the schedule on file with the petition, as is usually transported by express companies, restricted to exclude besides explosives all articles and commodities the transportation of which may be hereafter prohibited by the Commission.

This order is made subject to the following regulations and restrictions:

1. The company shall receive and deliver baggage, express matter and freight at suitable places or stations, and without discrimination or favor to any person or corporation.

2. All baggage, express and freight shall be transported in suitable cars, to be provided with proper fenders, brakes and safety appliances, and to be run at no time at a higher rate of speed than that at which the company operates passenger cars.

3. The exercise of the authority herein granted shall in no way alter or abridge the duties and obligations of the company relative to the transportation of passengers, nor in any way interfere with the conduct of the passenger service.

4. The company shall be subject to such further regulations and restrictions as shall be lawfully made from time to time.

5. The authority herein granted is given upon the express condition that it shall not operate in any way to enhance the value of the assets of the company in the event of a purchase of the railway property by the municipality or state.

Attest: CHARLES E. MANN,

SEPTEMBER 19, 1913. [P. S. C. 37]

Secretary.

Petition of the Boston Elevated Railway Company that it be required to act as a common carrier of baggage and freight in Arlington.

It appearing, after notice and hearing, held under the provisions of chapter 402 of the Acts of 1907, that the Boston Elevated Railway Company has heretofore filed with the selectmen of the town of Arlington a petition for approval of the right to act as a common carrier in said town over the lines of street railway operated by it as lessee of the West End Street Railway Company; and the selectmen of said town having failed to act on said petition within sixty days of the filing thereof, and the Commission being of the opinion that the rights petitioned for ought to be granted, — it is

Ordered, That the Commission hereby certify that public convenience and necessity require the granting of this petition, and therefore that the Boston Elevated Railway Company be required to act as a common carrier upon the lines of street railway in the town of Arlington operated by it as lessee of the West End Street Railway Company, to the extent of receiving, carrying and delivering such baggage, express matter and freight, described in the schedule on file with the petition, as is usually transported by ex-

press companies, restricted to exclude besides explosives all articles and commodities the transportation of which may be hereafter prohibited by the Commission.

This order is made subject to the following regulations and restrictions:

1. The company shall receive and deliver baggage, express matter and freight at suitable places or stations, and without discrimination or favor to any person or corporation.

2. No authority is herein granted to the company to transport baggage, express matter or freight, except by or in electric cars, or to delegate or lease to any other persons or corporations the rights hereby granted.

3. All baggage, express matter and freight shall be transported in suitable cars, to be provided with proper fenders, brakes and safety appliances, and to be run at no time at a higher rate of speed than that at which the company operates passenger cars.

4. The exercise of the authority herein granted shall in no way alter or abridge the duties and obligations of the company relative to the transportation of passengers, nor in any way interfere with the conduct of the passenger service.

5. The facilities by which and the manner in which the business is conducted shall be subject to supervision and regulation by the Commission from time to time as the public interests may require.

6. The authority herein granted is given upon the express condition that it shall not operate in any way to enhance the value of the assets of the company in the event of a purchase of the railway property by the municipality or state.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 23, 1913. [P. S. C. 290] Secretary.

Similar orders were also issued approving local grants giving common carrier rights to street railway companies, or requiring street railway companies to act as common carrier in cases where the municipal authorities had either acted adversely on the petition of the company or had failed to take action within sixty days, as follows:—

Bay State Street Railway Company.

Everett, December 31, 1913 — That it be required to act as a common carrier, the board of aldermen having failed to act on the petition of the company within sixty days. [P. S. C. 322]

Hull, December 23, 1913 — That it be required to act as a common carrier, the selectmen having failed to act on the petition of the company within sixty days. [P. S. C. 291]

Rockport, December 23, 1913 — Common carrier rights as established under an order of the selectmen dated November 12, 1908. [R. R. C. 8752]

Berkshire Street Railway Company.

Williamstown, February 19, 1913 — That it be required to act as a common carrier, the selectmen having failed to act on the petition of the company within sixty days. [R. R. C. 9205]

Boston Elevated Railway Company.

Cambridge, December 23, 1913 — That it be required to act as a common carrier, the board of aldermen having acted adversely on the petition of the company. [P. S. C. 288]

Everett, December 31, 1913 — That it be required to act as a common carrier, the board of aldermen having failed to act on the petition of the company within sixty days. [P. S. C. 323]

Malden, December 23, 1913 — That it be required to act as a common carrier, the board of aldermen having failed to act on the petition of the company within sixty days. [P. S. C. 289]

Somerville, December 23, 1913 — That it be required to act as a common carrier, the board of aldermen having acted adversely on the petition of the company. [P. S. C. 287]

Worcester Consolidated Street Railway Company.

Clinton, February 3, 1913 — That it be required to act as a common carrier, the selectmen having failed to act on the petition of the company within sixty days. [R. R. C. 9177]

Grafton, February 3, 1913 — That it be required to act as a common carrier, the selectmen having acted adversely on the petition of the company. [R. R. C. 9178]

Northborough, May 14, 1913 — Common carrier rights as established under an order of the selectmen dated June 12, 1908, as amended January, 1913. [R. R. C. 8673]

Shrewsbury, January 22, 1913 — Common carrier rights as established under an order of the selectmen dated February 17, 1912, as amended by an order adopted January 18, 1913. [R. R. C. 8702]

HEATING — CARS.

Petition of the Boston and Albany Railroad (New York Central and Hudson River Railroad Company, lessees) for authority to install hot water heaters, for experimental purposes.

After consideration, — it is

Ordered, That the Boston and Albany Railroad (New York Central and Hudson River Railroad Company, lessee) be hereby authorized to install, for experimental purposes, a hot water heater, known as the Cooper pressed steel heater, in two of its cars, specified in the petition.

Attest: CHARLES E. MANN,

FEBRUARY 11, 1913.

[R. R. C. 9233]

Clerk.

Petition of the Boston and Maine Railroad for exemption from the law as to steam heating.

After consideration, — it is

Ordered, That the Boston and Maine Railroad be hereby exempted, until the first day of October, 1914, from the law requiring passenger cars to be heated by steam from the locomotive in respect to cars on mixed trains upon the Easthampton branch of the Connecticut and Passumpsic division, the Acton branch of the Worcester, Nashua and Portland division, and the Ashburnham branch of the Fitchburg division of its railroad, as shown in schedules on file in this office, in which freight cars are placed between the locomotive and passenger cars, said passenger cars to be heated by the Baker heater heretofore approved by the board of railroad commissioners.

Attest: CHARLES E. MANN,

OCTOBER 10, 1913.

[P. S. C. 171]

Secretary.

Petition of the Central New England Railway Company for exemption from the law as to steam heating.

After consideration, — it is

Ordered, That the Central New England Railway Company be hereby exempted, until the first day of October, 1914, from the law requiring passenger cars to be heated by steam from the locomotive, in respect to passenger and baggage cars on mixed trains No. 600 and No. 602, which arrive at Springfield at 11.52 A.M. and 7.00 P.M., respectively, and mixed trains Nos. 601 and 603, which leave Springfield at 7.40 A.M. and 3.08 P.M., respectively, said cars to be heated by the Baker heater, heretofore approved by the board of railroad commissioners.

Attest: CHARLES E. MANN,
AUGUST 27, 1913. [P. S. C. 100] *Secretary.*

Petition of the New York, New Haven and Hartford Railroad Company for exemption from the law as to steam heating.

After consideration, — it is

Ordered, That the New York, New Haven and Hartford Railroad Company be hereby exempted, until the first day of October, 1914, from the law requiring passenger cars to be heated by steam from the locomotive, in respect to cars on certain mixed trains on the Shore Line, Old Colony and Western divisions of its railroad, specified in the petition, in which freight cars are placed between the locomotive and passenger cars, said passenger cars to be heated by the Baker heater heretofore approved by the board of railroad commissioners.

Attest: ANDREW A. HIGHLANDS,
NOVEMBER 3, 1913. [P. S. C. 205] *Secretary.*

Petition of the New York, New Haven and Hartford Railroad Company for modification of order for exemption from the law as to steam heating.

After consideration, — it is

Ordered, That the order of the Commission dated November 3, 1913, exempting the New York, New Haven and Hartford Railroad Company until October 1, 1914, from the law requiring pas-

1914.]

HEATING — CARS.

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senger cars to be heated by steam from the locomotive in respect to cars on certain mixed trains upon the Shore Line, Old Colony and Western divisions of its railroad, be hereby modified to cover the trains on the Old Colony division shown in the amended petition of said company filed in this office on December 18, 1913.

Attest: ANDREW A. HIGHLANDS,
DECEMBER 23, 1913. [P. S. C. 205] *Secretary.*

INVESTIGATION OF ACCIDENTS.

Investigation of collision on the Boston and Maine railroad at South Lawrence station, June 3, 1913.

On the morning of this accident the cab train left North Lawrence at 9.30, and arrived at South Lawrence at 9.34 A.M., and, while passing over a portion of the Southern division to reach the station platform, came into collision with Southern division passenger train No. 135, which was arriving from Lawrence Junction about three minutes late.

The tracks of the Manchester and Lawrence branch of the Portland division cross the tracks of the Southern division a few hundred feet north of the South Lawrence station. This forms a "railroad crossing" and the law requires the stopping of all trains within five hundred feet of such crossings before passing over them. A system of ball signals is installed at this point to direct the movement of trains over this crossing.

The rules governing the use of these signals are as follows:

71. All trains or engines on the Manchester and Lawrence branch, going towards North Lawrence from South Lawrence, or across the railroad grade-crossings in going from North to South Lawrence, and all trains on the Southern division having occasion to pass over the grade crossings at South Lawrence, must come to a full stop within five hundred feet of the crossing over which they are to pass, and remain until the proper signal is given for them to pass.

73. The "know-nothing" stop required of inbound trains and engines on Manchester and Lawrence branch, before crossing the Southern division track at South Lawrence, must be made at the "stop" post opposite old engine house location.

74. One ball or one red light; Portland division trains from the west may enter South Lawrence, or pass from South Lawrence east or north.

Two balls or two red lights; all trains on the Southern division may pass in either direction.

Three balls or three red lights; all trains from North Lawrence, on the Manchester and Lawrence branch, may pass to the Portland division main line. See special rule 73.

Four balls or four red lights; inbound trains on the Portland division main line may pass.

Five balls or five red lights; trains or engines may use the new cross-over between eastbound lead track and Southern division main track.

In absence of proper signals trains approaching South Lawrence from the east must stop far enough east of Salem street bridge to clear cross-over near that bridge leading from inward to outward track.

The Board fails to find that any rule exists which would permit trains to pass from the Southern division to the Manchester and Lawrence branch or vice versa, a route over which the cab train was passing at the time of the accident. In the absence of such a rule, train movements of this character are usually made under so-called "flag protection."

Near the Broadway crossing upon the Southern division is a semaphore signal operated by the crossing tender there stationed. The normal position of this signal is "danger", which is cleared by the crossing tender to allow trains approaching from that direction to reach the station.

The switches in the vicinity of South Lawrence station are operated by hand, and are in charge of switchmen provided for that purpose.

On the morning of the accident, when the cab train made its so-called "know-nothing" stop, the signal man displayed the "three balls" signal, which he and the crew of the cab train, from long custom, assumed gave the cab train a right to reach the spur track at the station. The switchman, observing the "three balls" signal displayed, and having the same understanding as to its meaning, set up the switches for this route. At about the same time the crossing tender at Broadway, observing train No. 135 approaching, cleared the semaphore signal, allowing that train to pass. The collision followed.

Train No. 135 is scheduled to stop at South Lawrence station, but owing to the rate of speed at which it approached the station, it did not make the stop as required by the time table.

Ball signals governing movements of trains were installed in the early days of railroading, when tracks were few in number and trains infrequently operated. Since that time the traffic has increased to such proportions as to require the adoption of a more

modern type of signal, and these ball signals have been replaced until at the present time comparatively few are to be found in use within the commonwealth. The ball signals are usually attached to tall masts, that they may be seen from a distance. These signals are frequently obscured from view by unfavorable weather conditions, thus giving no information to engineers operating trains until they are near the danger point, while the modern types of signals have an auxiliary, or caution signal, placed at a sufficient distance from the home signal to enable the engineer at all times to properly control his train.

The provisions of a law passed in 1906 and included in section 6 of part I, chapter 463 of the Acts of 1906, are that "the board may from time to time require railroad corporations and street railway companies to install and maintain at such places upon the railroad or street railway premises as it shall designate such block or other signals or devices as it shall approve for the purpose of safeguarding public travel." Under this authority the Board has never approved the system of ball signals, and an examination of its files shows that at no time in its history has it approved such a signalling device.

Uniformity in practice or operation is always desirable, and is especially so in railroad operation, as the memorizing of fewer rules is necessary for employees, who are often required to act quickly. We have therefore recommended that, on or before July 1, 1914, the management of each railroad system in the commonwealth replace the so-called "ball signals" by such a type of signal as may be approved by the Board.

The complicated conditions at South Lawrence have gradually come into existence and in the opinion of the Board should be remedied at once.

It is, therefore,

Ordered, That the Boston and Maine Railroad take immediate steps to install such an interlocking signal system for the proper control and operation of trains in the vicinity of the South Lawrence station at Lawrence as may be approved by the Board.

For the Board,

CHARLES E. MANN,

JUNE 19, 1913.

[R. R. C. 9405]

Clerk.

Investigation of collision on the West Quincy branch of the New York, New Haven and Hartford railroad, south of the West Quincy station, April 28, 1913.

Train No. 5037 is a regular passenger train, scheduled to leave Boston via the West Quincy branch of the New York, New Haven and Hartford railroad at 6.32 A.M. and to arrive at Braintree at 6.58 A.M. On the morning of the day of the accident, Monday, April 28, 1913, this train departed from the South station on time, and from the West Quincy station at 6.57 A.M., being about four minutes late. At about 7.00 A.M. it came into head-on collision with work train extra No. 621. Fortunately there were no fatalities as the result of the collision. As the passenger train was being operated entirely within its rights no blame for the accident rests upon the crew in charge of this train.

Work train extra No. 621 was being operated under telegraphic train order No. 1, Form 19, between South Braintree and South Bay junction, via the West Quincy branch. This train left South Braintree on the morning of the accident at about 6.30 A.M., and arrived at Braintree at about 6.55 A.M., stopping a short distance south of the station. The conductor left his train and while proceeding to the switch tower was joined by the Braintree yard master. At the switch tower a conversation took place between the conductor and the operator in the tower which was overheard by the yard master. The towerman instructed the conductor to proceed on the north-bound track to and over a cross-over leading to the West Quincy branch, a short distance north of the station, and to back his train on to the house track leading from the branch line in order to allow passenger train No. 5037 to pass. When work train extra No. 621 entered on the branch the towerman had every reason to believe that his instructions to the conductor were being carried out.

At Braintree station a register sheet is maintained, where the conductor of any train entering upon or leaving the West Quincy branch is required to register the time of its arrival or departure. The conductor of work train extra No. 621, following his conversation with the towerman, proceeded to examine the register sheet and at about 6.55 A.M. made therein the entry that his train departed from Braintree at 6.59 A.M. At about that time passenger train No. 5011, due to leave Boston at 6.29 A.M. and to arrive at South Braintree at 6.56 A.M., via the main line, arrived at Braintree and made a stop upon the south-bound track, where passenger train No. 5037 would stop when it arrived.

The conductor and engineer of work train extra No. 621, assuming train No. 5011 via the main line to be train No. 5037, via the branch, upon receiving the switches leading to the West Quincy branch proceeded on the branch line until it came into collision with passenger train No. 5037. It was a foggy morning.

It is claimed by the engineer that he received from the conductor the signal "All right" to proceed, while the conductor denies that he gave such signal.

The engineer did not have the benefit of knowing the conversation between the towerman and the conductor, which was overheard by the yardmaster.

In the book of rules of the operating department of the New York, New Haven and Hartford Railroad Company, under the heading "General Rules for Conductors", is rule 610, which reads in part as follows:

610. At points where train registers are kept conductors must personally enter in the register, as soon as possible after the arrival of the train at station, all the information required by its form; and before proceeding must know whether all trains due, which are superior or of the same class, have arrived or left. . . .

Under the heading "Enginemen" is rule 544, which reads as follows:

544. Make the safety of the train of the first importance in the discharge of their duties. Should there be any doubt as to the right of road or safety of proceeding from any cause, consult with the conductor, and be equally responsible with him for the safety and proper handling of the train, and for such use of signals and other precautions as the case may require. Be vigilant and cautious, not trusting alone to signals or rules for safety.

Under "Movement of Trains" is rule 105, which reads as follows:

105. Both conductors and enginemen are responsible for the safety of their trains and, under conditions not provided for by the rules, must take every precaution for their protection.

Also this rule:

88a. When a train of inferior class meets a train of superior class on single track, the train of inferior class must take the siding and clear the train of superior class ten minutes, unless otherwise provided for in the time-table.

It would appear that trains should be safely operated under the foregoing rules, but we find, upon examination of rules in force upon other railroads, a more explicit provision in some instances with respect to the joint and equal responsibility of the engineman and conductor for the safety of the train, and that both are required to examine register books where maintained before starting on each trip and at each point thereafter, unless otherwise directed.

Had the rules of the New York, New Haven and Hartford Railroad Company required the engineer of work train extra No. 621 to make an examination of the register at the Braintree station before leaving, or to have received a clearance card before entering upon the branch line, his exact responsibility with reference to the accident would be less difficult to determine.

The rules provided by the management of railroads and street railways, with reference to maintenance and safe operation of their roads, should, to accomplish the desired results, be as few in number and as explicit as possible.

The conditions existing at Braintree, with reference to the arrival and departure of trains, on the morning of the accident were such as would lead into trouble those who are inclined to assume rather than to know the facts as they actually existed.

This accident belongs in the preventable class, and the Board recommends the adoption of such rules and the enforcement of such discipline as will tend to prevent the recurrence of accidents of this or of a similar character.

The West Quincy branch of the New York, New Haven and Hartford railroad is a single track line and is about five and one-half miles in length. The traffic on this line is heavy, about forty trains passing over it daily. While the accident was not primarily due to the absence of block signals upon this branch, their installation would have been an added precaution, and it is therefore

Ordered, That the New York, New Haven and Hartford Railroad Company forthwith install upon the West Quincy branch of its railroad block signals of such type and in such locations as may be approved by the Board.

By the Board,

CHARLES E. MANN,

JUNE 14, 1913.

[R. R. C. 9357]

Clerk.

JOINT USE OF TRACKS.

Petition of the Bay State Street Railway Company for approval of agreement for continuance of joint use of tracks with the Blue Hill Street Railway Company in Milton.

It appearing, after notice and hearing, that the terms of an agreement executed by the Old Colony Street Railway Company (now the Bay State Street Railway Company) and by the Milton Street Railway Company (now merged in the Blue Hill Street Railway Company), under date of July 15, 1903, and extended by an agreement dated July 15, 1908, to cover an additional period of five years, and further extended by an agreement dated July 15, 1913, to cover an additional period of five years, provide for a joint use of tracks in Milton that is consistent with the public safety, — it is

Ordered, That such authority for entering upon and using the tracks of these railways as may be derived from the above named agreement be hereby approved, with the understanding that the operation of cars over the tracks subject to such use shall be governed by joint rules and regulations established and published by both companies.

Attest: ANDREW A. HIGHLANDS,
NOVEMBER 5, 1913. [P. S. C. 199] Secretary.

Petition of the Bay State Street Railway Company and the Taunton and Pawtucket Street Railway Company for approval of use of tracks of the Bay State Street Railway Company by the Taunton and Pawtucket Street Railway Company in Taunton.

After notice and hearing and full consideration, — it is

Ordered, That the Board hereby certify that the joint operation of cars over certain tracks of the Bay State Street Railway Company in the city of Taunton, to the extent and under the rules and regu-

lations provided in an agreement executed by the Bay State Street Railway Company and the Taunton and Pawtucket Street Railway Company under date of March 1, 1913, a copy of which agreement is on file in this office, is consistent with the public safety.

Attest: CHARLES E. MANN,
MARCH 26, 1913. [R. R. C. 9275] Clerk.

Petition of the Worcester Consolidated Street Railway Company and the Milford and Uxbridge Street Railway Company for approval of joint use of tracks in Uxbridge and Milford.

After notice and hearing and full consideration, — it is

Ordered, That the Board hereby certify that the joint operation of cars over certain tracks of the Worcester Consolidated and the Milford and Uxbridge street railway companies in the towns of Uxbridge and Milford, to the extent and under the rules and regulations provided in an agreement executed by said companies under date of May 31, 1913, a copy of which agreement is on file in this office, is consistent with the public safety.

Attest: CHARLES E. MANN,
JUNE 28, 1913. [R. R. C. 9425] Clerk.

RAILROAD LOCATIONS.

Petition of the New York, New Haven and Hartford Railroad Company that the Board prescribe the limits within which additional land may be taken in the town of Norfolk.

Upon the petition of the New York, New Haven and Hartford Railroad Company, filed March 7, 1913, praying that the board of railroad commissioners prescribe the limits within which additional land may be taken in the town of Norfolk in the county of Norfolk in the commonwealth of Massachusetts, outside the limits of its route already fixed in said town, for the purpose of making and securing its road and for depot or station purposes and for one or more new tracks adjacent to other land occupied by said railroad company by tracks already in use, due notice having been given to the owners of said land and to all other parties interested as ordered by the Board, and a hearing having been held, at which the petitioner was represented by F. A. Farnham, Esq., its attorney, and Messrs. Ware, land owners, were represented by E. C. Jenney, Esq., this Board does now determine that the petitioner requires said additional land for the purposes set forth in said petition and is unable to obtain the same by agreement with the owners thereof, and does now prescribe the limits within which said land may be taken by the petitioner for the purposes aforesaid without the permission of the owners thereof, to wit, two parcels of land bounded and described as follows:

Beginning at a point in the northerly side of railroad location about one hundred fifty-five (155) feet westerly of Railroad street, so called; thence by said railroad location south $62^{\circ} 43'$ west one hundred seventeen and seventy-nine one-hundredths (117.79) feet; thence continuing by said railroad location south $62^{\circ} 59'$ west twenty-seven and sixty-three one-hundredths (27.63) feet; thence by the location of the Medway branch fifty-eight (58) feet; thence by land of Cornelius J. Murphy and others north $69^{\circ} 03'$ west eighty-one and ninety one-hundredths (81.90) feet; thence north $62^{\circ} 59'$ east by remaining land of Elmer E. Ware and by a line seventy (70) feet northwesterly from and parallel with the base line of railroad location three hundred thirty-five and sixty-three one-hundredths (335.63) feet; thence north $81^{\circ} 45'$

east thirty-nine and thirty-five one-hundredths (39.35) feet; thence by land of Fred P. Thayer and others south $36^{\circ} 24'$ west one hundred twenty-seven and fifteen one-hundredths (127.15) feet to the point of beginning; said parcel containing forty-six one-hundredths (0.46) of an acre more or less.

Beginning in the northerly side line of location of said Medway branch, where the land herein described adjoins on the east the first parcel above described; thence by said Medway branch location by a curve to the right with a radius of six hundred ninety-two and three one-hundredths (692.03) feet one hundred seventy-nine and twenty-nine one-hundredths (179.29) feet to a point one hundred (100) feet northwesterly from and at right angles to the base line of location, formerly of the New England Railroad Company, now of the New York, New Haven and Hartford Railroad Company, at station 1222 + 97.63; thence north $62^{\circ} 59'$ east by remaining land of C. J. Murphy et al and by a line seventy (70) feet northwesterly from and parallel with said base line of location one hundred twelve (112) feet more or less; thence south $69^{\circ} 03'$ east by the parcel last above described eighty-one and ninety one-hundredths (81.90) feet to the point of beginning; said parcel containing nine one-hundredths (0.09) of an acre more or less.

The limits hereby prescribed and the land included within the same are shown in yellow upon a plan entitled "N. Y., N. H. & H. R.R., Midland Division, Land Plan, Property Required from Elmer E. Ware, Norfolk, Mass. Scale 1" = 100', Boston, Nov. 19, 1912", which plan is signed by the Chairman of the Board, and is made a part of this decree.

Whereunto we, members of the board of railroad commissioners, have hereunto set our hands this thirty-first day of May, 1913.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

[R. R. C. 9267]

Commissioners.

Petition of the Old Colony Railroad Company that the Board prescribe the limits within which additional land may be taken in the town of Easton.

Upon the petition of the Old Colony Railroad Company, filed March 7, 1913, praying that the board of railroad commissioners prescribe the limits within which additional land may be taken in the town of Easton in the county of Bristol in the commonwealth

of Massachusetts, outside the limits of its route already fixed in said town, for the purpose of making and securing its road and for depot or station purposes and for one or more new tracks adjacent to other land occupied by said railroad company by tracks already in use, due notice having been given to the owners of said land and to all other parties interested as ordered by the Board, and a hearing having been held, at which the petitioner was represented by F. A. Farnham, Esq., its attorney, and Cornelius J. Dineen and Mary F. Dineen, owners of a portion of said land, were represented by Frederick T. Conley, Esq., this Board does now determine that the petitioner requires said additional land for the purposes set forth in said petition and is unable to obtain the same by agreement with the owners thereof, and does now prescribe the limits within which said land may be taken by the petitioner for the purposes aforesaid without the permission of the owners thereof, to wit: one parcel of land bounded and described as follows:

Beginning at a point in the present easterly line of location of the Old Colony Railroad Company where it is intersected by the northerly line of Williams street extension, so called; thence by said railroad location north $1^{\circ} 39'$ west seven hundred forty-three and forty-eight one-hundredths (743.48) feet more or less; thence by a stone wall by land now or formerly of Mrs. E. F. Brett south $84^{\circ} 27'$ east two hundred twelve (212) feet more or less; thence south $3^{\circ} 30'$ east by a stone wall one hundred eighty-nine and eight one-hundredths (189.08) feet more or less; thence by lands now or formerly of E. McMullen and Robert T. Conroy south $2^{\circ} 56'$ east two hundred ninety-three and three-tenths (293.3) feet more or less; thence south $4^{\circ} 12'$ west two hundred thirty-five and thirty-three one-hundredths (235.33) feet more or less to said Williams street extension; thence by said Williams street extension south 88° west one hundred ninety-five (195) feet more or less to the point of beginning.

The limits hereby prescribed and the land included within the same are shown in red upon a plan entitled "Land at North Easton required for freight yard, N. Y., N. H. & H. R.R. Co., F. A. Farnham, Attorney", which plan is signed by the Chairman of the Board, and is made a part of this decree.

Whereto we, members of the board of railroad commissioners, have hereunto set our hands this thirty-first day of May, 1913.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

[R. R. C. 9268]

Commissioners.

STREET RAILWAY LOCATIONS.

Petition of the Boston Elevated Railway Company for approval of plan showing location of tracks and structures at Guild street in Boston.

The annexed plan, numbered 27893, showing form and method of construction and location of tracks, car house, shop and incidental structures of the Boston Elevated Railway Company situated off Washington street at Guild street in the city of Boston, used for the inspection, repair and storage of elevated cars, is hereby approved.

FREDERICK J. MACLEOD,
GEORGE W. ANDERSON,
GEO. P. LAWRENCE,
GEORGE W. BISHOP,

AUGUST 12, 1913.

[P. S. C. 66]

Commissioners.

Petition of the Boston Elevated Railway Company for approval of plan showing location of blacksmith's shop in Charlestown.

The annexed plan, numbered 26198, showing proposed location, form and method of construction of a blacksmith's shop of the Boston Elevated Railway Company, under existing elevated storage yard, all on private property, at the corner of Arlington avenue and Dorrance street in the Charlestown district of the city of Boston, said plan being a modification or change of plan numbered 26193, approved by the board of railroad commissioners January 21, 1907, is hereby approved, consent being given to the changes shown.

FREDERICK J. MACLEOD,
GEORGE W. ANDERSON,
CLINTON WHITE,
GEORGE W. BISHOP,

SEPTEMBER 16, 1913.

[P. S. C. 91]

Commissioners.

Petition of the Berkshire Street Railway Company that the Board designate the location and prescribe the terms and restrictions applicable thereto with respect to certain extensions of its railway in the city of Pittsfield under the provisions of chapter 601 of the Acts of 1910.

B. W. WARREN for Berkshire Street Railway Company.

P. J. MOORE, mayor

JAMES FALLON, city solicitor } for Pittsfield.

The Berkshire Street Railway Company has presented a petition to the Board wherein it requests the Board, after a hearing or conference with its representatives and representatives of the board of aldermen of Pittsfield, to designate the location and prescribe the terms and conditions applicable thereto for its double track railway in North and Wahconah streets in Pittsfield, which it is required to construct under paragraph numbered third of the order of this Board dated December 29, 1911.

After notice and hearing, it appearing that the petitioner and the board of aldermen of Pittsfield have disagreed as to the location of the street railway company's railway in said North and Wahconah streets, the Board, acting under the provisions of the Acts of 1910, chapter 601, section 3, hereby designates the following location for the extension of the railway of said Berkshire Street Railway Company and for the construction of double tracks of said railway in said city of Pittsfield, viz.:—

Beginning at a point in present center line of tracks of Berkshire street railway on North street, said point being about 22.93 feet north-easterly of the northerly street line of White terrace produced westerly; running thence on said North street N. $29^{\circ} 12'$ E. about 142.13 feet to a point; thence by a curve to the right, radius 2,864.93 feet, arc about 184.17 feet, to a point; thence N. $32^{\circ} 53'$ E. along said North street about 174.39 feet to a point; to this point the tracks to be laid 11 feet center to center; thence by a curve to the left, to Wahconah street, radius 100 feet, arc about 81.91 feet, to a point, which point equals station 0 + 05.6 on Wahconah street survey; at this point, the tracks to be laid 11 feet center to center; thence N. $14^{\circ} 03'$ W. 1,450.67 feet, to a point; thence by a curve to the left, radius 466.72 feet, arc about 206.5 feet, to a point; thence N. $39^{\circ} 26'$ W. 121.26 feet to a point; thence by a curve to the right, radius 231.3 feet, arc about 45.22 feet to a point; thence N. $28^{\circ} 17'$ W. 661.79 feet to a point. To this point the tracks to be laid 11 feet center to center; thence by a curve to the right, radius 120 feet, arc about 77.07 feet, to a point. At this point

the tracks to be laid 11 feet center to center; thence N. $8^{\circ} 43'$ E. 509.76 feet to a point. To this point the tracks to be laid 11 feet center to center; thence by a curve to the right, radius 125 feet, arc about 70.07 feet, to a point; at this point the tracks to be laid 11 feet center to center; thence N. $40^{\circ} 50'$ E. 203.86 feet to a point; thence by a curve to the right, radius 5,729.65 feet, arc about 73.33 feet to a point; thence N. $41^{\circ} 34'$ E. 196.05 feet to a point; thence by a curve to the left, radius 5,729.65 feet, arc about 126.67 feet, to a point; thence N. $40^{\circ} 18'$ E. 528.63 feet to a point. To this point the tracks to be laid 11 feet center to center. Thence by a curve to the left, radius 200 feet, arc about 75 feet, to a point. At this point the tracks to be laid 11 feet center to center; thence N. $18^{\circ} 49'$ E. 204.88 feet to a point; thence by a curve to the left, radius 5,729.65 feet, arc about 98.33 feet to a point; thence N. $17^{\circ} 50'$ E. 860.53 feet to a point; thence by a curve to the right, radius 852.02, arc about 243.86 feet, to a point; thence N. $34^{\circ} 14'$ E. 263.05 feet to a point at station $60 + 25$ on plan and approximately in the northerly line of Wilson street produced easterly; thence northeasterly by connecting curves, about 180 feet to a point in center line of existing track of Berkshire street railway. The above described line being the center line of proposed double track on said Wahconah street.

Also a crossover track. Beginning at a point in center line of westerly track of proposed double track on North street, said point being about 20 feet northeasterly of the northerly line of Kent avenue produced easterly; running thence by reverse curves to the right and left, about 80 feet to a point in the center line of proposed easterly track of proposed double track.

Also a connecting track. Beginning at a point in center line of proposed easterly track of proposed double track on Wahconah street, about opposite station $0 + 40$ on plan; running thence southeasterly by a curve to the left, radius 55 feet, arc about 60 feet, to a point in center line of existing connecting track leading to Berkshire street railway track on Burbank street.

Also a connecting track. Beginning at a point in the center line of proposed westerly track of proposed double track on Wahconah street at about station $2 + 10$ on plan; running thence southwesterly by a curve to the right to a point in the center line of existing car barn entrance track.

Also crossover track. Beginning at a point in the center line of proposed westerly track of proposed double track on Wahconah street, said point being at about station $2 + 20$ on plan; running thence by curves to the right and left about 80 feet to a point in the center line of proposed easterly track of proposed double track on Wahconah street.

Also a crossover track. Beginning at a point in center line of pro-

posed westerly track of proposed double track on Wahconah street, said point being at about station 11 + 05 on plan; running thence by curves to the right and left about 80 feet to a point in center line of proposed easterly track of proposed double track on Wahconah street.

Also a connecting track. Beginning at a point in center line of proposed westerly track of proposed double track on Wahconah street, at about station 10 + 95 on plan; running thence southwesterly by a curve to the right, to a point in center line of existing track on Seymour street.

Also a crossover track. Beginning at a point in the center line of proposed westerly track of proposed double track on Wahconah street, said point being at about station 18 + 90 on plan; running thence by curves to the right and left about 80 feet to a point in the center line of proposed easterly track of proposed double track on Wahconah street.

Also a crossover track. Beginning at a point in the center line of proposed easterly track of proposed double track on Wahconah street, said point being at about station 29 + 85 on plan; running thence by curves to the left and right, about 80 feet to a point in the center line of proposed westerly track of proposed double track on Wahconah street.

Also a connecting track. Beginning at a point in the center line of proposed westerly track of proposed double track on Wahconah street, said point being at or about station 30 + 75 on plan; running thence by curves to the right and left to a point in the center line of existing track of the Berkshire street railway on Peck's road.

And all as shown on plans made by Durkee, White and Towne, engineers, marked B-209-A, filed herewith.

The Board prescribes the following terms and restrictions to be applicable to the location hereinbefore designated:

1. The company shall widen the bridge at the Grist Mill to such an extent as will leave a portion of the same unoccupied by its tracks as wide as the portion of said bridge now unoccupied by its tracks, or in the event that the proper officials of the city of Pittsfield shall, prior to the time when the company shall have begun to widen said bridge, elect to construct a new union bridge at or near the said Grist Mill, then the company shall pay to the city one-third of the entire cost of constructing said bridge, its abutments and approaches, and also one-third of the cost of removing the old bridge and its abutments, as said cost shall be ascertained by this Board, and the city shall pay two-thirds thereof. The work of constructing said bridge, its approaches and abutments and of removing the old bridge and its abutments shall be done by the city.

2. Wherever in the opinion of this Board, on its own determination or at the suggestion of the board of public works, guard rails should be laid along any portion of the tracks covered by this order, said guard rails shall be laid by the company.

The rails used shall be eighty pound T rails, spiked directly to the ties, shall be laid so as to conform in a manner satisfactory to the board of public works to the grade of the streets covered by this order, as set forth and indicated on the profile of the city engineer dated May 1, 1912, re-arranged August 12, 1912, and the space between the ties shall be filled in to the satisfaction of said board.

The ties shall be of suitable timber not less than seven (7) feet in length, six (6) inches thick, with six (6) inches face, and spaced not more than two (2) feet on centers. The roadbed shall be constructed with at least eighteen (18) inches of suitable ballast below base of rails, and properly drained. All work shall be done to the satisfaction of this Board.

3. The necessary poles and wires for the location herein granted shall be located as shown on the plans heretofore filed and to which reference is hereinbefore made, or, in such other places as this Board shall indicate and approve.

4. All poles required for the overhead system shall be round chestnut poles, and they shall be subject to the inspection and selection of the supervisor of wires and poles of the city of Pittsfield.

5. The said company shall not cut nor trim any trees except as authorized by the board of public works, and shall pay all damages therefor.

6. Said company shall make such provision for all its electric currents, including return currents, and shall so guard and control the same by and with proper conductors, containers and other suitable apparatus and safeguards, that injury, detriment or damage shall not thereby occur nor be done to water pipes, gas pipes, or other property of said city of Pittsfield, or of any person or corporation, and said company shall pay all damages caused by reason of its failure to keep and perform the provisions of this condition, and shall save the city of Pittsfield harmless and keep the said city indemnified from all loss, cost, detriment, damage or expense which may arise from, grow out of, or which shall in any way be caused by the failure of said company to keep and perform the provisions of this condition.

7. The company shall so carry on the work of constructing its tracks as to incommode the traveling public as little as possible, and in the conduct of the work shall be subject to such reasonable regulations as shall from time to time be made by the board of public works; provided, however, that in the event of any disagreement between said board of public works and the company as to the reasonableness of such regulations the matter may be submitted to this Board, and its decision thereon shall be final.

8. The portion of the street included between the rails, between the tracks and eighteen inches outside of the tracks shall be paved by the city with bituminous pavement, and the company shall, from time to time as the work progresses, reimburse the city for the cost thereof as certified by the board of public works of said city and as ascertained and approved by this Board. The company shall also, from time to time as the work progresses, reimburse the city for one-half of all expense which the board of public works shall certify and this Board shall ascertain and approve as having been incurred by the city within two years from the first day of April, 1913, in paving with such bituminous pavement any other portions of said streets as heretofore laid out and accepted by the city, between a point opposite White terrace, so called, and the most northerly point in the location hereby granted, and in making any other improvements upon such portions of said streets, within the limits above designated, as, in the opinion of the board of public works, shall be in consequence of said double tracks and of widening said streets therefor, including in such expense, land damages, and the cost of changing and constructing grades, pipes, gutters, sidewalks, curbs, fences, retaining walls and other similar work done by the city of Pittsfield within said period of time; and, in the opinion of the said board of public works, occasioned by the construction of said street railway and by such widening of the streets; provided, however, that any dispute which may arise between said board of public works and the company, regarding the amount, cost or character of the work to be done upon abutting land and intersecting streets, ways and walks, whether private or accepted, within the limits of the said location, in order to insure proper ingress and egress to and from said Wahconah street and said land, said intersecting streets and walks, shall be referred to this Board, and its decision thereupon shall be final and binding.

9. The amount for which the street railway company shall so reimburse the city may be capitalized by said company. All work done by the city on such streets shall be so done as to interfere as little as possible with the operation of the cars and with the construction of its railway by the company and with the reasonable use of said streets by the public. In the event that the city of Pittsfield shall award a contract for the pavement in said Wahconah and North streets, and a bond shall be given by the contractors for the protection of the city in the matter of the quality and character of such pavement for a specified term, such bonds shall in like manner also protect the company.

10. Whenever the city shall change the character, style or material of the paving of said North and Wahconah streets, or either of them, between the said point opposite White terrace and the said most northerly point in the location hereby granted, the company, at its own expense, shall make such change in the character, style or material of the

paving between its tracks and eighteen inches on each side of its tracks as shall render the same similar in all respects to the character, style or material of the paving so laid by the city.

11. The company shall indemnify and save the city harmless from all damages, loss, costs or expense arising from the construction, maintenance or operation of the street railway hereunder, on account of any injury to any person or property caused by reason of a defect in a street, highway, or bridge, for which injury the company may be liable, provided the company shall have had reasonable notice to defend any action brought to recover damages for such injury.

12. If the city shall water, sprinkle with oil, treat with calcium chloride or other dust preventive material any of the streets covered by the location herein granted, said company shall pay such amount per foot of its trackage or physical location which shall be in any street or streets so watered, oiled or treated with calcium chloride or other dust preventive material, as shall, from time to time, be deemed by the board of aldermen a fair and proportionate part of the total expense of watering said streets or of sprinkling them with oil, or of treating them with calcium chloride or other dust preventive material. If, however, said company shall sprinkle, oil or treat with calcium chloride or other dust preventive material, to the satisfaction of the board of aldermen, any portion of the streets between its rails and for a space of eighteen inches outside of the outer rails of its said tracks, it shall be exempt from the payment of such proportionate expense of said cost of watering, oiling or treating with calcium chloride or other dust preventive material said street or streets.

13. In the event of a fire, and whenever in connection therewith they deem it proper, the officers and members of the fire department may cut the wires of said trolley system; and if so cut, said wires shall be repaired at the expense of said company. In case of fire, the company shall on the request of any of the engineers of said fire department, discontinue any and all currents of electricity over its wires.

14. Whenever and wherever the relocation of the poles and wires of other companies shall be made necessary by reason of any act done by the company; or, in the event that such relocation or removal shall be for the convenience and benefit of said company, then, and in such case, said company shall relocate at its own expense, all such poles and wires of other companies.

15. Said company shall on all its cars carry free, policemen, firemen on duty and letter carriers in uniform.

16. On all north bound cars the destination of which shall be the station of Pontoosuc lake or points on said line beyond said Pontoosuc lake station, there shall be displayed signs adequate, in the opinion of this Board, to indicate the name of the place of such car's destination, and, in addition to the name of the place of destination, if such place

of destination be not said Lake station or Lanesboro, there shall be displayed on said cars a sign, on which there shall be printed, in large letters, the name of said Lanesboro, if the car is going to or beyond said Lanesboro, and upon each of said north bound cars there shall be displayed a sign to indicate that said car is intended for the transportation of passengers to said Lake Pontosuc, if such be the fact.

17. After sundown, each of said cars in whatsoever direction bound shall, when required by the board of aldermen with the approval of this Board, display, in some proper place, a sufficient and appropriate light, or other sign or device, to indicate the direction and destination of said car.

18. Whenever the company, on the one hand, and the board of public works, the board of aldermen, or the inspector of poles and wires of the city of Pittsfield, on the other hand, shall disagree as to any action of said boards, respectively, or of said inspector, with respect to anything to be done or payment to be made by the company hereunder which shall, by the terms of this order, in any way rest in or depend upon the discretion of, or judgment, opinion, approval, or direction of, or be provided to be done to the satisfaction of, either of said boards or of said inspector, the question at issue shall be referred to this Board, and its decision on the matter shall be final.

19. If through the fault of the company the tracks are not constructed for the operation of cars and cars operated upon all portions of the location herein granted, on or before the first day of October, A.D. 1913, then, and in such case, that portion of the said location upon which the tracks shall not have been constructed and cars operated shall become void, unless an extension of time shall be granted by this Board.

20. Wherever the words "board of aldermen" or a personal pronoun in the place thereof, or in substitution therefor, are used in this order, it is to be understood as meaning the "board of aldermen of the city of Pittsfield" acting either directly or through the properly authorized agents of said board, and such agents acting within the scope of the particular authority granted to them, and in accordance with the duties entrusted to and imposed upon them; and wherever the word "company" or a pronoun in place thereof is used in this order, it shall be understood as meaning the "Berkshire Street Railway Company"; and wherever the words "board of public works" or a personal pronoun in the place thereof are used in this order, it is to be understood as meaning the "board of public works of the city of Pittsfield" acting either directly or through the properly authorized agents of said board, and such agents acting within the scope of the particular authority granted to them, and in accordance with the duties entrusted to and imposed upon them, and wherever the word "city" or a pronoun in the place thereof is used in this order, it is to be understood

as meaning the "City of Pittsfield"; and wherever the word "location" is used in this order, it is to be understood as meaning the space in said streets which shall be occupied by the tracks of the Berkshire Street Railway Company, the space in said streets lying between the said tracks, and also portions of said streets, eighteen (18) inches in width, extending along the entire length of said tracks and situated and being contiguous to and immediately outside the outermost rails of said tracks.

Attest: CHARLES E. MANN,
JUNE 19, 1913. [R. R. C. 9138] Clerk.

Petition of the Berkshire Street Railway Company for extension of time for the construction of certain extensions of railway in the city of Pittsfield, specified in chapter 601 of the Acts of 1910.

It appearing, after notice and hearing and further consideration that, under the provisions of section 3 of chapter 601 of the Acts of 1910, the Berkshire Street Railway Company is required to construct (e) such extensions, double tracking, and track reconstruction in the cities of North Adams and Pittsfield as the mayor and city council of the city of North Adams, and the mayor and board of aldermen of the city of Pittsfield, respectively, shall within nine months after the passage of said act request, and as the board of railroad commissioners (now the Public Service Commission) shall approve as consistent with the public interest and convenience; that said street railway company is required by the terms of said act to construct and open for use in a manner satisfactory to said Board said extensions before the first day of January, 1913, unless said Board after public notice and hearing extend the time for the construction of said extensions of railway by a certificate stating that in its judgment due diligence has been exercised by said street railway company and that public necessity and convenience require such extensions of time, and that by an order dated December 24, 1912, the board of railroad commissioners issued its certificate extending the time for the construction of the extensions of railway in Pittsfield specified in clause (e) of section 3 of said chapter 601 of said Acts of 1910 to October 1, 1913, — it is

Ordered, That the Commission hereby certify that in its judgment due diligence has been exercised by the Berkshire Street Railway Company and that public necessity and convenience require that the time for the construction of the extensions of railway in Pitts-

field specified in clause (e) of section 3 of chapter 601 of the Acts of 1910, including the tracks located by the order of the board of railroad commissioners dated June 19, 1913, be extended, and hereby issues its certificates extending the time for the construction of said extensions to November 1, 1914.

Attest: CHARLES E. MANN,
SEPTEMBER 25, 1913. [P. S. C. 135] Secretary.

Petition of the Berkshire Street Railway Company for extension of time for the construction of certain extensions of railway in the city of North Adams, specified in chapter 601 of the Acts of 1910.

It appearing, after notice and hearing and further consideration, that, under the provisions of section 3 of chapter 601 of the Acts of 1910, the Berkshire Street Railway Company is required to construct (e) such extensions, double tracking, and track reconstruction in the cities of North Adams and Pittsfield as the mayor and city council of the city of North Adams, and the mayor and board of aldermen of the city of Pittsfield, respectively, shall within nine months after the passage of said act request, and as the board of railroad commissioners (now the Public Service Commission) shall approve as consistent with the public interest and convenience; that said street railway company is required by the terms of said act to construct and open for use in a manner satisfactory to the Board said extensions before the first day of January, 1913, unless said Board after public notice and hearing extend the time for the construction of said extensions of railway by a certificate stating that in its judgment due diligence has been exercised by said street railway company and that public necessity and convenience require such extension of time, and that by an order dated December 24, 1912, the board of railroad commissioners issued its certificate extending the time for the construction of the extensions of railway in North Adams specified in clause (e) of section 3 of said chapter 601 of said Acts of 1910 to October 1, 1913, — it is

Ordered, That the Commission hereby certify that in its judgment due diligence has been exercised by the Berkshire Street Railway Company and that public necessity and convenience require that the time for the construction of the extensions of railway in

North Adams specified in clause (e) of section 3 of chapter 601 of the Acts of 1910 be extended, and hereby issues its certificate extending the time for the construction of said extensions to December 1, 1914.

Attest: CHARLES E. MANN,
SEPTEMBER 19, 1913. [P. S. C. 134] Secretary.

Petition of the Berkshire Street Railway Company for approval of location designated in said petition for an extension of its railway to a point at or near the summit of Greylock mountain.

It appearing, after notice and hearing and further consideration that, under the provisions of section 3 of chapter 601 of the Acts of 1910, the Berkshire Street Railway Company is required to construct, upon a location designated by said company and approved by this Commission, “(b) a line of street railway from some convenient point on the line of the Berkshire Street Railway Company to some point at or near the summit of Greylock mountain: *provided*, that the Greylock reservation commission assents to the construction of such line of railway through the reservation and indicates a route therefor, which, in the opinion of the board of railroad commissioners, will permit of safe and reasonably economical construction and operation for a railway to some point at or near the summit of said mountain;” that said proposed line of street railway upon the location designated in said petition of said street railway company will cost, according to the company’s estimate, approximately \$1,100,000; that the Greylock reservation commission has not assented to the construction of said railway upon the entire location designated by said company through said reservation but only upon a part thereof, and has indicated in the reservation a route for said line of railway, which requires the same to terminate at a point about 200 feet below the summit of the mountain and distant therefrom in a direct line and over a heavy grade about 1,200 feet, or by the easier course, designated in the petition of the company, about 4,600 feet; the Commission is of opinion that the location designated in the petition of the Company and the partial route therefor indicated by the Greylock reservation commission do not permit of reasonably economical construction and operation for the proposed railway and that the location therefor ought not to be approved.

It must be evident to anyone familiar with Greylock mountain that such a line of railway as that proposed in this petition would be patronized only during a comparatively brief portion of each year. Such patronage would be confined entirely to pleasure seekers, and the line of railway would serve no adequate purpose in developing, for agriculture or settlement, portions of the commonwealth available for either of such purposes if made accessible. Indeed, many miles of the proposed extension lie through a state reservation in which such development, even if the nature of the steep and heavily wooded mountain sides did not otherwise prevent, is contrary to the very purpose for which the reservation was created. The interest charge alone on the estimated cost of construction will amount at the rate of 5% to \$55,000 a year. A railway built, as this one would necessarily be, upon steep mountain sides and used only during the short summer season, would be exposed to rapid deterioration involving a heavy annual expense for repairs and maintenance. To secure a return upon the cost of construction and operation, at all adequate, would necessitate such high fares as to make the general use of the railway by the public prohibitive. To place the fares at a point sufficiently low to attract patronage during the short summer season in which the public would care to use the railway upon any terms, would result in an income far below that which would be necessary to meet the fixed charges, operating expenses and cost of maintenance.

The investment of so large an amount of money in a purely scenic and pleasure line of railway would greatly delay, and might perhaps ultimately prevent, the construction by this street railway company of other extensions of its railway system in the western part of the commonwealth which would be of immediate and permanent benefit to the public now served by it, and to the public in territory contiguous to that at present served by its existing lines. If the company is able at this time to invest such a large amount of capital in the construction of extensions, the Commission is of opinion that the company may much better give consideration to the construction of extensions from which the return to the company cannot be less, and from which the benefit to the public must be far greater, than would result from this proposed line on Greylock mountain.

For the foregoing and other reasons, — it is

Ordered, That the Commission is of opinion that the location designated in the petition of the Berkshire Street Railway Company and the route therefor through the Greylock reservation, indicated

by the Greylock reservation commission, will not permit of reasonably economical construction and operation of a railway to a point at or near the summit of said Greylock mountain, and does not approve said location.

By the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 31, 1913. [P. S. C. 311] *Secretary.*

Petition of the Massachusetts Northeastern Street Railway Company for approval of temporary location in Salisbury.

After notice and hearing and full consideration, — it is

Ordered, That the approval of the Board be hereby given, under the provisions of chapter 518 of the Acts of 1910, to the temporary location for the tracks of the Massachusetts Northeastern street railway at Salisbury beach near Allen's dance hall in the town of Salisbury, established under an order of the Salisbury Beach Reservation Commission dated April 23, 1913, a copy of which order, with accompanying plan, is on file in this office, for the purpose of enabling the company to avoid interruption to its street railway service.

Attest: CHARLES E. MANN,
MAY 31, 1913. [R. R. C. 9345] *Clerk.*

HIGHWAY LOCATIONS.

Petition of the Bay State Street Railway Company for approval of location in Beverly.

After notice and hearing and full consideration, — it is

Ordered, That the Board hereby certify that the alteration and relocation of its existing tracks and an extension of location in Cabot street in the city of Beverly, established under an order of the board of aldermen of said city dated September 3, 1912, a copy of which order, with accompanying plan, is on file in this office, are consistent with the public interests.

Attest: CHARLES E. MANN,
MAY 12, 1913. [R. R. C. 9317] *Clerk.*

Under the provisions of general law, many additional certificates have been issued, during the year, that the locations or alterations of locations, or temporary locations, for the tracks of various street railway companies granted by local authorities are consistent with the public interests. Under section 8, chapter 413, Acts of 1887, locations granted street railway companies in the cities of Boston and Cambridge and the town of Brookline have been approved.

Appended is a list of such additional highway locations granted to various street railway companies that have been approved: —

Bay State Street Railway Company.

Boston, June 11, 1913 — Relocation in Chelsea street and on the new bridge over the Mystic river, North channel, established under an order of the board of street commissioners dated April 22, 1913. [R. R. C. 9380]

Boston, August 12, 1913 — Relocation of existing double tracks in Spring street, West Roxbury, from Webster street to the Charles river, established under an order of the board of street commissioners dated June 24, 1913, and known as the third location. [P. S. C. 31]

Boston, September 22, 1913 — Location for cross-connection in Bennington street in East Boston, established under an order of the board of street commissioners dated September 2, 1913, and known as the fourth location. [P. S. C. 137]

Boston, November 3, 1913 — Relocation in Hyde Park avenue, from Metropolitan avenue to the former Boston line, in the Hyde Park district, established under an order of the board of street commissioners dated September 23, 1913, and known as the fifth location. [P. S. C. 179]

Brockton, July 23, 1913 — Locations in North Main street, Ames street, Intervale street, Bellevue avenue and Sawtelle avenue, and in Grafton street, Menlo street, Longwood avenue and West Chestnut street, established under an order of the board of aldermen dated March 24, 1913, and amended May 19, 1913. [P. S. C. 18]

Chelsea, March 21, 1913 — Relocation in Washington avenue, Everett avenue and Broadway, established under an order of the board of aldermen dated February 10, 1913. [R. R. C. 9272]

Chelsea, June 19, 1913 — Relocation in Broadway, established under an order of the board of aldermen dated May 12, 1913. [R. R. C. 9399]

Dedham, November 3, 1913 — Location and relocation in Washington street, from Williams street to the Boston line, established

under an order of the selectmen dated October 6, 1913. [P. S. C. 180]

Dighton, January 25, 1913 — Relocation in Elm street, established under an order of the selectmen dated December 2, 1911. [R. R. C. 9201]

Easton, September 16, 1913 — Location in Turnpike street at Washington street, established under an order of the selectmen dated August 25, 1913. [P. S. C. 108]

Essex, April 3, 1913 — Relocation in the state highway known as Eastern avenue, established under an order of the Massachusetts highway commission dated March 11, 1913. [R. R. C. 9280]

Fall River, June 30, 1913 — Location and relocation in Bay street, Bedford street and County street, established under an order of the board of aldermen adopted June 2, 1913. [R. R. C. 9428]

Fall River, October 15, 1913 — Relocation in Bank and Linden streets, established under an order of the board of aldermen dated September 15, 1913. [P. S. C. 161]

Fall River, October 15, 1913 — Location and relocation in Bedford and Haffards streets, established under an order of the board of aldermen dated September 2, 1913. [P. S. C. 162]

Georgetown, June 13, 1913 — Relocation in Main street as now located and in the substituted way to be built near Weston's crossing, established under an order of the selectmen dated May 24, 1913. [R. R. C. 9389]

Gloucester, August 12, 1913 — Relocation in Washington street, established under an order of the municipal council dated July 1, 1913. [P. S. C. 65]

Haverhill, February 19, 1913 — Location and relocation in Essex street, established under an order of the municipal council dated January 3, 1913. [R. R. C. 9225]

Haverhill, February 19, 1913 — Relocation in Main street, established under an order of the municipal council dated January 3, 1913. [R. R. C. 9226]

Haverhill, November 5, 1913 — Relocation in River street, from near Maxwell street to Washington street, established under an order of the municipal council adopted October 16, 1913. [P. S. C. 209]

Hingham, March 21, 1913 — Location for a turnout in West street, established under an order of the selectmen dated February 28, 1913. [R. R. C. 9273]

Hingham, May 12, 1913 — Location in the state highway, established under an order of the Massachusetts highway commission dated April 9, 1913. [R. R. C. 9318]

Hingham, May 20, 1913 — Relocation in Lincoln street, established under an order of the selectmen dated February 28, 1913. [R. R. C. 9343]

Hingham, August 21, 1913 — Location in Lincoln street, from state highway station 96 + 90 to the Weymouth line, established under an order of the selectmen dated August 8, 1913. [P. S. C. 80]

Ipswich, May 12, 1913 — Relocation in Lord square and Central street, established under an order of the selectmen dated March 28, 1913. [R. R. C. 9319]

Lawrence, May 29, 1913 — Location and relocation in Newbury, East Haverhill and Prospect streets, established under an order of the city council adopted April 7, 1913. [R. R. C. 9361]

Lawrence, October 15, 1913 — Relocation in South Broadway, Broadway and East Haverhill street, established under an order of the city council adopted August 29, 1913. [P. S. C. 166]

Lowell, July 31, 1913 — Temporary location in Gorham street, between Elm street and Davis square, established under an order of the municipal council adopted June 13, 1913. [P. S. C. 36]

Lynn, May 20, 1913 — Relocation in Lynnfield street, Western avenue, Boston street and Franklin street, established under an order of the municipal council dated April 8, 1913. [R. R. C. 9340]

Lynn, June 19, 1913 — Location in Essex street, established under an order of the municipal council adopted May 20, 1913. [R. R. C. 9400]

Lynn, October 1, 1913 — Relocation in Boston street, established under an order of the municipal council adopted August 29, 1913. [P. S. C. 143]

Marblehead, November 28, 1913 — Relocation in Swampscott road, at Hathaway's turnout, established under an order of the selectmen dated November 7, 1913. [P. S. C. 232]

Melrose, September 16, 1913 — Relocation in Main street, established under an order of the board of aldermen dated July 7, 1913. [P. S. C. 103]

Methuen, May 29, 1913 — Location for turnout in Lowell street, established under an order of the selectmen adopted May 3, 1913. [R. R. C. 9360]

North Andover, February 19, 1913 — Relocation in the state highway known as Osgood street, established under an order of the Massachusetts highway commission dated January 8, 1913. [R. R. C. 9228]

Quincy, May 29, 1913 — Location for turnouts in Coddington

street and Sea street, established under an order of the city council dated April 21, 1913. [R. R. C. 9359]

Quincy, June 27, 1913 — Relocation in Copeland street, established under an order of the city council adopted May 5, 1913, as amended by an order adopted June 2, 1913. [R. R. C. 9415]

Quincy, October 15, 1913 — Location and relocation in Elm avenue between Hancock street and Huntington square, established under an order of the city council adopted June 2, 1913. [P. S. C. 167]

Rockport, May 12, 1913 — Relocation in Granite street, established under an order of the selectmen dated March 26, 1913. [R. R. C. 9315]

Salem, November 28, 1913 — Relocation in Essex and Boston streets, established under an order of the city council dated October 31, 1913. [P. S. C. 231]

Saugus, May 12, 1913 — Relocation in the Salem turnpike, established under an order of the selectmen dated April 14, 1913. [R. R. C. 9316]

Saugus, August 12, 1913 — Relocation in the state highway, known as the Salem turnpike, established under an order of the Massachusetts highway commission dated June 24, 1913. [P. S. C. 64]

Stoneham, August 21, 1913 — Relocation in Main street, from Hershorn street to Montvale avenue, established under an order of the selectmen dated July 21, 1913. [P. S. C. 74]

Taunton, February 19, 1913 — Relocation in Whittenton street, established under an order of the municipal council dated December 26, 1912. [R. R. C. 9229]

Taunton, May 12, 1913 — Relocation in Warren and Whittenton streets and in West Britannia street, established under an order of the municipal council dated April 15, 1913. [R. R. C. 9322]

Tyngsborough, February 19, 1913 — Relocation in the state highway known as Main street, established under an order of the Massachusetts highway commission dated January 8, 1913. [R. R. C. 9227]

Weymouth, March 21, 1913 — Relocation in the state highway known as Bridge street, established under an order of the Massachusetts highway commission dated January 28, 1913. [R. R. C. 9274]

Weymouth, May 12, 1913 — Location in the state highway, established under an order of the Massachusetts highway commission dated April 9, 1913. [R. R. C. 9318]

Weymouth, June 19, 1913 — Location and relocation in North

street, established under an order of the selectmen dated June 2, 1913. [R. R. C. 9401]

Weymouth, July 23, 1913 — Location in Bridge street, established under an order of the selectmen dated June 21, 1913. [P. S. C. 16]

Winchester, September 22, 1913 — Relocation in Main street, established under an order of the selectmen dated September 5, 1913. [P. S. C. 140]

Berkshire Street Railway Company.

Pittsfield, October 8, 1913 — Relocation in the state highway known as Housatonic street, established under an order of the Massachusetts highway commission dated August 13, 1913. [P. S. C. 154]

Bristol and Norfolk Street Railway Company.

Stoughton, August 12, 1913 — Location in Willow street, established under an order of the selectmen dated July 30, 1913. [P. S. C. 62]

Brockton and Plymouth Street Railway Company.

Kingston, Plymouth, June 30, 1913 — Relocation in Main street in Kingston and in Court street in Plymouth, established under orders of the selectmen of said towns dated respectively June 7, 1913, and June 9, 1913. [R. R. C. 9424]

East Middlesex Street Railway Company.

Malden, June 30, 1913 — Relocation in and near Malden Upper and Lower squares, established under an order of the board of aldermen dated June 10, 1913. [R. R. C. 9432]

Fitchburg and Leominster Street Railway Company.

Fitchburg, August 12, 1913 — Location in Water street, established under an order of the board of aldermen adopted July 25, 1913. [P. S. C. 56]

Interstate Consolidated Street Railway Company.

Attleborough, January 30, 1913 — Location in West street, established under an order of the selectmen dated December 18, 1912. [R. R. C. 9208]

Attleborough, January 30, 1913 — Location in Mill street, established under an order of the selectmen dated December 18, 1912. [R. R. C. 9209]

Martha's Vineyard Street Railway Company.

Tisbury, June 30, 1913 — Location in Beach road, established under an order of the selectmen dated December 7, 1912. [R. R. C. 9431]

Massachusetts Northeastern Street Railway Company.

Newburyport, May 22, 1913 — Relocation in the state highway, known as Storey avenue, established under an order of the Massachusetts highway commission dated October 1, 1912. [R. R. C. 9332]

Salisbury, May 31, 1913 — Location at Salisbury beach, established under orders of the selectmen dated March 10, 1913, and of the Salisbury beach reservation commission dated March 22, 1913. [R. R. C. 9346]

Middlesex and Boston Street Railway Company.

Framingham, November 3, 1913 — Relocation in Waverly street, west of Winter street, at South Framingham, established under an order of the selectmen dated October 14, 1913. [P. S. C. 197]

Lexington, April 10, 1913 — Location for poles in Massachusetts avenue and Bedford street, established under an order of the selectmen adopted March 14, 1913. [R. R. C. 9290]

Lexington, December 9, 1913 — Location for poles in Bedford street and Massachusetts avenue, established under an order of the selectmen dated November 24, 1913. [P. S. C. 247]

Natick, May 29, 1913 — Location for poles in Pond street, from Main street to Speen street, established under an order of the selectmen adopted April 17, 1913. [R. R. C. 9364]

Newton, April 10, 1913 — Pole location at the corner of Centre and Beacon streets, established under an order of the mayor and board of aldermen adopted March 24, 1913. [R. R. C. 9292]

Newton, April 22, 1913 — Relocation of poles in Washington street near Wales street, established under an order of the board of aldermen adopted April 7, 1913. [R. R. C. 9301]

Waltham, January 29, 1913 — Pole locations in Crescent street, between Woerd avenue and Moody street, established under an order of the mayor and board of aldermen adopted December 16, 1912. [R. R. C. 9181]

Milford, Attleborough and Woonsocket Street Railway Company.

Wrentham, March 20, 1913 — Relocation in the state highway, known as Franklin street, established under an order of the Massachusetts highway commission dated February 11, 1913. [R. R. C. 9262]

Wrentham, May 29, 1913 — Location in the highway to Lake Pearl, established under an order of the selectmen dated May 1, 1913. [R. R. C. 9365]

Wrentham, December 9, 1913 — Relocation in the state highway, established under an order of the Massachusetts highway commission dated November 18, 1913. [P. S. C. 248]

Milford and Uxbridge Street Railway Company.

Uxbridge, June 27, 1913 — Revocation of location in Mendon street, under an order of the selectmen dated October 18, 1912. [R. R. C. 9310]

Uxbridge, June 28, 1913 — Location in Main and Douglas streets and in Mendon street, established under an order of the selectmen dated October 14, 1912. [R. R. C. 9416]

Millers River Street Railway Company.

Erving, May 3, 1913 — Location in County road and the state highway, established under an order of the selectmen dated January 20, 1912, and an order of the Massachusetts highway commission dated February 11, 1913. [R. R. C. 8711]

Montague, May 3, 1913 — Location in Main, Franklin and Newton streets, established under an order of the selectmen dated October 25, 1911. [R. R. C. 8583]

Orange, May 3, 1913 — Location in West Main street and the state highway, established under an order of the selectmen dated October 7, 1911, and an order of the Massachusetts highway commission dated March 11, 1913. [R. R. C. 8551]

Nahant and Lynn Street Railway Company.

Nahant, August 7, 1913 — Location in Castle road, Flash road and Great Marsh road, established under an order of the selectmen dated June 12, 1913. [P. S. C. 1]

New Bedford and Onset Street Railway Company.

Bourne, March 6, 1913 — Location in the new highway crossing the Cape Cod canal, established under an order of the selectmen dated February 7, 1913. [R. R. C. 9239]

Mattapoisett, October 1, 1913 — Location in the state highway, established under an order of the Massachusetts highway commission dated September 9, 1913. [P. S. C. 146]

Wareham, November 12, 1913 — Location and relocation in the state highway, at the new Point Independence bridge, established under an order of the Massachusetts highway commission dated October 28, 1913. [P. S. C. 214]

Norfolk and Bristol Street Railway Company.

Foxborough, April 30, 1913 — Relocation in North street, established under an order of the selectmen dated December 14, 1912. [R. R. C. 9182]

Walpole, April 30, 1913 — Relocation in Water street, established under an order of the selectmen dated April 25, 1913. [R. R. C. 9182]

Northern Massachusetts Street Railway Company.

Athol, July 31, 1913 — Relocation in Main and School streets, established under an order of the selectmen dated June 30, 1913. [P. S. C. 30]

Orange, July 23, 1913 — Location for a spur track in Athol road, established under an order of the selectmen dated June 21, 1913. [P. S. C. 15]

Templeton, June 28, 1913 — Location for feed wires over the road leading to Baldwinville, the Otter river road, the Baldwinville road and Crow Hill road, established under an order of the selectmen dated December 7, 1912. [R. R. C. 9408]

Templeton, June 28, 1913 — Location for an extension of the side track leading to the Wheeler and McGowan's mill at East Templeton, established under an order of the selectmen dated January 18, 1913. [R. R. C. 9409]

Templeton, October 8, 1913 — Location and relocation at Fisher's turnout in the state highway leading to Baldwinville, at the Otter river switch and at Riley's switch, established under an order of the selectmen dated December 7, 1912, and an order of the Massachusetts highway commission dated September 30, 1913. [P. S. C. 163]

Oak Bluffs Street Railway Company.

Oak Bluffs, June 30, 1913 — Location in Wamsutta avenue, Back alley, Circuit avenue, Kedron avenue, Siloam avenue and Dukes County avenue, established under orders of the selectmen dated September 11, 1912. [R. R. C. 9430]

Plymouth and Sandwich Street Railway Company.

Bourne, May 21, 1913 — Extension upon the new way, viaduct and bridge over the Cape Cod canal, in Pleasant street and the county road; in Hunters Brook road; in the town way, in the way leading to the residence of William A. Nye, in the new county road, called the Collins Farm road, in an extension of the new county road and in the state highway, established under an order of the selectmen dated November 19, 1912, and an order of the Massachusetts highway commission dated January 15, 1913. [R. R. C. 9210]

Point Shirley Street Railway Company.

Winthrop, November 28, 1913 — Location in Otis street, from Shirley street (sometimes called Tafts avenue) to the car barn, established under an order of the selectmen dated June 23, 1913. [P. S. C. 229]

Providence and Fall River Street Railway Company.

Swansea, March 21, 1913 — Location for poles in Bush road, Providence road and Maple street, established under an order of the selectmen adopted February 15, 1913, and a permit of the Massachusetts highway commission dated March 10, 1913. [R. R. C. 9264]

Springfield Street Railway Company.

Agawam, January 20, 1913 — Location in the state highway, known as Main street, established under orders of the selectmen and the Massachusetts highway commission dated October 15, 1912, and December 10, 1912, respectively. [R. R. C. 9188]

Agawam, June 13, 1913 — Extension of turnout in Main street, established under an order of the selectmen dated May 8, 1913. [R. R. C. 9381]

Chicopee, June 13, 1913 — Location and relocation in Broadway, between Grove street and Summer street, established under an order of the board of aldermen dated May 5, 1913. [R. R. C. 9382]

Longmeadow, May 20, 1913 — Relocation in Longmeadow street,

established under an order of the selectmen adopted April 28, 1913. [R. R. C. 9344]

Springfield, May 20, 1913 — Location in North Main street, established under an order of the board of aldermen dated April 21, 1913. [R. R. C. 9339]

Springfield, June 27, 1913 — Location in St. James avenue, established under an order of the board of aldermen dated June 2, 1913. [R. R. C. 9414]

Springfield, July 23, 1913 — Location for a turnout in Sumner avenue near White street, established under an order of the board of aldermen dated April 21, 1913. [P. S. C. 9]

Springfield, November 3, 1913 — Relocation in North Main street, established under an order of the board of aldermen dated September 29, 1913. [P. S. C. 188]

Springfield, November 5, 1913 — Location for extension of turnout in Walnut street near Hickory street and location for single track in Walnut and Hickory streets, established under an order of the board of aldermen dated October 20, 1913. [P. S. C. 207]

Springfield, November 5, 1913 — Location for branch-off at State and Hancock streets, established under an order of the board of aldermen dated October 20, 1913. [P. S. C. 208]

Westfield, May 29, 1913 — Location in Franklin street, established under an order of the selectmen dated March 8, 1913. [R. R. C. 9363]

Westfield, June 13, 1913 — Location for turnout in Court street, established under an order of the selectmen dated May 5, 1913. [R. R. C. 9383]

Westfield, June 13, 1913 — Location for turnout in Western avenue, established under an order of the selectmen dated May 5, 1913. [R. R. C. 9384]

West Springfield, June 13, 1913 — Extension of turnout in River street, established under an order of the selectmen dated May 24, 1913. [R. R. C. 9390]

West Springfield, November 12, 1913 — Location for a crossover in the state highway, established under an order of the Massachusetts highway commission dated October 28, 1913. [P. S. C. 11]

Union Street Railway Company.

Dartmouth, July 23, 1913 — Relocation in the state highway near Lincoln park, established under an order of the Massachusetts highway commission dated June 24, 1913. [P. S. C. 17]

New Bedford, January 20, 1913 — Location and relocation in Arnold street, established under an order of the board of aldermen dated December 18, 1912. [R. R. C. 9183]

New Bedford, January 20, 1913 — Location and relocation in Ashland street, established under an order of the board of aldermen dated December 18, 1912. [R. R. C. 9184]

New Bedford, October 15, 1913 — Relocation in Durfee street, between Summer street and Mt. Pleasant street, established under an order of the board of aldermen dated October 1, 1913. [P. S. C. 170]

Warren, Brookfield and Spencer Street Railway Company.

West Brookfield, November 3, 1913 — Location for a spur track in the state highway, established under an order of the Massachusetts highway commission dated October 22, 1913. [P. S. C. 198]

West End Street Railway Company.

Belmont, May 29, 1913 — Relocation in Grove street, Bright road, Concord avenue, Belmont street and Trapelo road, established under an order of the selectmen dated May 5, 1913. [R. R. C. 9362]

Boston, February 5, 1913 — 412th location: cross connections in Boylston street, between Ipswich street and Audubon road; cross connection in Ipswich street, north of Boylston street, and single curved track at easterly corner of Brookline and Longwood avenues, established under an order of the board of street commissioners dated December 31, 1912. [R. R. C. 9216]

Boston, March 15, 1913 — 413th location: cross connection in Dorchester avenue, south of Savin Hill avenue, in place of existing cross connection in Savin Hill avenue west of Dorchester avenue, established under an order of the board of street commissioners dated February 18, 1913. [R. R. C. 9263]

Boston, April 25, 1913 — 414th location: additional curved track in Arlington avenue, opposite Beacham street, in Charlestown, established under an order of the board of street commissioners dated March 25, 1913. [R. R. C. 9287]

Boston, April 30, 1913 — 415th location: relocation of tracks in Talbot avenue, crossing Washington street, and relocation of curved tracks at Washington street and Talbot avenue;

416th location: relocation of tracks in Beacon street, from Raleigh street to west of Commonwealth avenue, and in Commonwealth avenue at its junction with Beacon street; location for double tracks

in Commonwealth avenue from the subway entrance at Kenmore street, and in Brookline avenue from Commonwealth avenue to Boylston street; location for single track in Kilmarnock street from Brookline avenue to Boylston street and double curved tracks at the junction of Brookline avenue and Boylston street;

417th location: double curved tracks at the westerly corner of Beacon street and Massachusetts avenue; all established under orders of the board of street commissioners dated March 25, 1913. [R. R. C. 9302]

Boston, May 29, 1913 — 418th location: relocation of the southerly of the existing tracks in Beacon street, between Commonwealth avenue and Audubon circle, and of the northerly of the existing tracks between Audubon circle and the Brookline line, established under an order of the board of street commissioners dated May 6, 1913. [R. R. C. 9366]

Boston, September 16, 1913 — 421st location: relocation of tracks in Lexington street, East Boston, from Meridian street to Prescott street;

422nd location: relocation of tracks in Dover street, between the bridge and Tremont street, and relocation of tracks and curves in Washington street at Dover street;

423rd location: relocation of tracks at the southeast corner of Charles and Cambridge streets; all established under orders of the board of street commissioners dated August 12, 1913. [P. S. C. 104]

Boston, September 22, 1913 — 424th location: relocation of tracks in Beacon street and Chestnut Hill avenue, in Brighton;

425th location: relocation of tracks in Huntington avenue, in Roxbury;

426th location: relocation of tracks in Bennington, Chelsea and Saratoga streets in East Boston; all established under orders of the board of street commissioners dated September 2, 1913;

Extension of time to March 21, 1914, for completing work of construction under the 346th location (additional cross-connection in Bunker Hill street between Pine and Decatur streets, Charlestown), established under an order of the board of street commissioners dated March 11, 1913. [P. S. C. 138]

Boston, September 25, 1913 — 419th location: additional double tracks in L street, South Boston, from East First street to East Fourth street; relocation of existing single and double tracks in East Fourth street, at L street, and additional curves at the northeast and northwest corners; relocation in Broadway of the single

curve entering K street, of the single curve entering L street and of the southerly track between K and L streets, and additional cross-connection between K and L streets, established under an order of the board of street commissioners dated July 8, 1913;

420th location: double tracks from and connecting with existing location east of P street, in East First street, Farragut road and East Second street, to and connecting with existing curve at P street; three curved tracks from Farragut road to company's property; an additional curve at southeasterly corner of P and East First streets, and cross-connection in East Second street west of Farragut road, established under an order of the board of street commissioners dated August 14, 1913. [P. S. C. 85]

Boston, November 3, 1913 — 427th location: relocation of tracks in South street, West Roxbury district, from Jamaica street to the Arborway, and of the curves entering the Jamaica Plain carhouse;

428th location: relocation of the northerly track in Dorchester avenue, city proper, from Summer street to south of Mount Washington avenue (formerly);

429th location: relocation of tracks in Harvard avenue, from south of Commonwealth avenue to Cambridge street;

430th location: relocation of tracks in Massachusetts avenue, Dorchester district, from the New England railroad bridge to Edward Everett square;

431st location: two additional cross-connections in L street, between East First street and the channel, South Boston district, all established under orders of the board of street commissioners dated September 23, 1913. [P. S. C. 178]

Brookline, October 1, 1913 — Relocation in Beacon street and Chestnut Hill avenue, established under an order of the selectmen dated September 15, 1913. [P. S. C. 149]

Cambridge, January 20, 1913 — Relocation in Mt. Auburn street and Aberdeen avenue, as established under an order of the board of aldermen dated December 10, 1912. [R. R. C. 9180]

Cambridge, June 30, 1913 — Relocation in Mount Auburn street, established under an order of the board of aldermen dated June 18, 1913. [R. R. C. 9427]

Cambridge, September 30, 1913 — Location and relocation in River street, Western avenue, Central square, Massachusetts avenue and Prospect street, established under an order of the board of aldermen dated March 25, 1913. [P. S. C. 159]

Cambridge, November 3, 1913 — Relocation of tracks in Bridge street, from Prison Point street to near Lechmere square, estab-

lished under an order of the board of aldermen dated September 30, 1913. [P. S. C. 182]

Cambridge, December 2, 1913 — Relocation at the junction of Cambridge street and Broadway, established under an order of the board of aldermen dated November 11, 1913. [P. S. C. 240]

Everett, August 12, 1913 — Relocation in Broadway, Ferry street and Glendale square, established under an order of the board of aldermen dated July 25, 1913. [P. S. C. 55]

Malden, June 30, 1913 — Relocation in and near Malden Upper and Lower squares, established under an order of the board of aldermen dated June 10, 1913. [R. R. C. 9432]

Medford, June 27, 1913 — Additional curved track at Salem street and Fellsway West, established under an order of the board of aldermen adopted June 3, 1913. [R. R. C. 9410]

Newton, September 22, 1913 — Relocation of tracks in Tremont, Park and Washington streets, established under an order of the board of aldermen adopted September 8, 1913. [P. S. C. 132]

Worcester Consolidated Street Railway Company.

Berlin, February 21, 1913 — Location for feed wires in Randall road, Linden street, Jones road and Crosby road, over the location of the New York, New Haven and Hartford railroad that crosses said street and roads, and in the highway to Hudson, over the location of the Boston and Maine railroad that crosses said highway, established under an order of the selectmen dated January 6, 1913. [R. R. C. 9230]

Clinton, March 11, 1913 — Location for feed wires over Fitch road and Rigby road, established under an order of the selectmen dated February 21, 1913. [R. R. C. 9256]

Millbury, June 9, 1913 — Location for feed wires over Providence street, Town road, highway leading from Millbury to Sutton, highway near Bramanville, Sutton road, Singletary street and highway leading from Bramanville to West Sutton, and in the highway leading from West Sutton to North Oxford, established under an order of the selectmen dated May 12, 1913. [R. R. C. 9377]

Northborough, February 21, 1913 — Location for feed wires in Whitney street, Colburn street and Rice avenue, over the location of the New York, New Haven and Hartford railroad that crosses said streets and avenue, established under an order of the selectmen dated January 18, 1913. [R. R. C. 9231]

Oxford, September 19, 1913 — Location for feed wires over Federal Hill road, over Millbury road, in Prospect street and over the

state highway and Charlton road, established under an order of the selectmen dated June 27, 1913. [P. S. C. 123]

Oxford, September 19, 1913 — Location for feed wires over Eddy street, established under an order of the selectmen dated June 27, 1913. [P. S. C. 124]

Southbridge, October 8, 1913 — Relocation and extension in Main street, established under an order of the selectmen dated September 15, 1913. [P. S. C. 144]

Sutton, September 19, 1913 — Location for feed wires in the highway leading from West Sutton to North Oxford and over the Oxford and Sutton road, established under an order of the selectmen dated August 12, 1913. [P. S. C. 125]

Uxbridge, June 28, 1913 — Location and relocation in Main and Mendon streets, established under an order of the selectmen dated April 11, 1913. [R. R. C. 9417]

Worcester, January 20, 1913 — Location for a turnout in Lincoln street, established under an order of the board of aldermen adopted December 16, 1912. [R. R. C. 9192]

Worcester, January 20, 1913 — Location for a turnout in Hamilton street, established under an order of the board of aldermen adopted December 16, 1912. [R. R. C. 9193]

Worcester, July 23, 1913 — Relocation in Franklin street, established under an order of the board of aldermen adopted June 30, 1913. [P. S. C. 12]

Worcester, July 31, 1913 — Location for a turnout in Vernon street, near Montrose street and Euclid avenue, established under an order of the board of aldermen adopted July 2, 1913. [P. S. C. 38]

Worcester and Webster Street Railway Company.

Oxford, November 28, 1913 — Relocation in the state highway, established under an order of the Massachusetts highway commission dated November 5, 1913. [P. S. C. 228]

PRIVATE LAND LOCATIONS.

Under the provisions of general laws, during the year authority has been granted to various street railway companies to construct their railways in part upon private land for the purpose of avoiding undesirable grades and curves in the public highways and for other purposes incidental to the use of these highways, or avoiding the crossing of the railway with a steam railroad, these orders being based in each case upon evidence that public necessity and convenience demanded such action. A summary of these orders follows: —

Bay State Street Railway Company.

Dighton, January 25, 1913 — Near Elm street, for purposes incidental to the use of the highway. [R. R. C. 9201]

North Andover, March 1, 1913 — Turnout near Osgood street, for purposes incidental to the use of the highway. [R. R. C. 9251]

Bristol and Norfolk Street Railway Company.

Stoughton, August 12, 1913 — On private land near Willow street, for the purpose of maintaining a turnout. [P. S. C. 62]

Milford, Attleborough and Woonsocket Street Railway Company.

Wrentham, May 29, 1913 — Turnout partly on private land near the highway to Lake Pearl. [R. R. C. 9365]

Millers River Street Railway Company.

Erving, May 3, 1913 — For the purpose of avoiding grades and curves in the highway. [R. R. C. 8711]

Montague, May 3, 1913 — For purposes incidental to the use of the highway. [R. R. C. 8583]

Nahant and Lynn Street Railway Company.

Nahant, August 7, 1913 — For purposes incidental to the use of the highway. [P. S. C. 1]

Northern Massachusetts Street Railway Company.

Orange, July 23, 1913 — On private land near Brookside Park, for the purpose of maintaining a siding. [P. S. C. 15]

Oak Bluffs Street Railway Company.

Oak Bluffs, June 30, 1913 — For purposes incidental to the use of the highway. [R. R. C. 9430]

Worcester Consolidated Street Railway Company.

Uxbridge, June 28, 1913 — For purposes incidental to the use of the highway. [R. R. C. 9417]

LOCOMOTIVE ENGINES.

Petition of F. W. Rane, State Forester, relative to the equipping of engines of the New York, New Haven and Hartford Railroad Company operating in Barnstable county with oil burning devices.

It is

Ordered, That a copy of this petition be sent to the New York, New Haven and Hartford Railroad Company with the request that it make report as to the feasibility of substituting oil for coal, particularly in the cape district; also as to the comparative cost of the two methods of supplying fuel for the engines, including also consideration of economies by reason of saving in damage claims for forest fires set.

It is further

Ordered, That the petition stand for public hearing on September 22, 1913, at 10.30 o'clock in the forenoon, to be duly advertised.

AUGUST 19, 1913. Attest:
[P. S. C. 90]

ALLAN BROOKS,
Assistant Secretary.

WHISTLING.

Petitions of the selectmen of Andover and residents of Ballardvale relative to whistling of locomotives on the Boston and Maine railroad.

The petitioners request the Board to prohibit the whistling of locomotives on the Boston and Maine railroad at the Andover street crossing, near the Ballardvale station, and the unnecessary whistling of locomotives in the vicinity of said station and Lowell Junction.

Public hearings were given on these petitions. After further consideration, it appearing that Andover street crossing is protected by gates both day and night for the passing of all trains, — it is

Ordered, That the whistling of locomotives as a crossing signal on all trains approaching in either direction the Andover street crossing, near the Ballardvale station, in the town of Andover, be hereby prohibited; it being understood, however, that the whistle shall be sounded whenever upon approaching this crossing there seems to be a special occasion therefor to avoid accident.

In respect to the whistling of locomotives in the vicinity of Ballardvale and Lowell Junction for the purpose of giving signals, the Board recommends that the company restrict the whistling for such purpose to that which is absolutely necessary for safe and proper operation.

	Attest:	CHARLES E. MANN,
FEBRUARY 5, 1913.	[R. R. C. 9082, 9141]	<i>Clerk.</i>

CERTIFICATES PRELIMINARY TO OPERATION — RAIL-ROAD.

Petition of the Boston and Albany Railroad Company for certificate preliminary to operation of a section of its Athol branch in the city of Springfield.

Examination having been made of a section of the Athol branch of the Boston and Albany railroad as relocated and constructed in the city of Springfield, consisting of a single track, beginning at a point on said branch near its junction with the main line, said point being about twenty feet from the east side of the interlocking tower at the junction, thence running easterly and northerly a distance of 4,423 feet to a point on the old location of the railroad, where it connects with the original track, — it is

Ordered, That the Board hereby certify that all laws relating to the construction of said section of relocated track have been complied with, and that the railroad appears to be in a safe condition for operation.

Attest: CHARLES E. MANN,

MAY 13, 1913.

[R. R. C. 9132]

Clerk.

Petition of the Hampden Railroad Corporation for certificate preliminary to operation of its railroad.

Examination having been made of the Hampden railroad, consisting of a single track line with sidings, extending from a connection with the Central Massachusetts branch of the Boston and Maine railroad in the town of Palmer, thence running westerly through the towns of Palmer, Belchertown and Ludlow and the cities of Chicopee and Springfield to a connection with the Athol branch of the Boston and Albany railroad at a point about three hundred forty feet from the junction of said branch with the main

line of the Boston and Albany railroad, the total length of said Hampden railroad being about 14.81 miles, — it is

Ordered, That the Board hereby certify that all laws relative to the construction of the Hampden railroad have been complied with, and that the railroad appears to be in a safe condition for operation.

Attest:

CHARLES E. MANN,

JUNE 18, 1913.

[R. R. C. 9391]

Clerk.

CERTIFICATES PRELIMINARY TO OPERATION — STREET RAILWAYS.

During the year, examinations having been made of a part or the whole of the railways of various street railway companies, certificates have been issued that all laws relating to construction had been complied with, and that they appeared to be in a safe condition for operation. A detailed list of these certificates follows:—

Bay State Street Railway Company.

Abington, June 2, 1913 — Relocated track in Central street at the Rockland line. [R. R. C. 9258]

Andover, April 17, 1913 — Single track in the state highway, known as Main street, at the dividing line between Lawrence and Andover. [R. R. C. 9258]

Arlington, September 25, 1913 — Single track in Mystic street, from the Winchester town line westerly a distance of about one hundred sixty feet. [P. S. C. 67]

Billerica, June 4, 1913 — Double tracks in Pollard street and Talbot avenue, across and on either side of Fordway bridge. [R. R. C. 9258]

Boston, July 22, 1913 — Double tracks in Chelsea street and across the new drawbridge over the Mystic river, North channel. [P. S. C. 24]

Brockton, April 17, 1913 — Branch-off in Howard street, at Gypsy turnout. [R. R. C. 9258]

Brockton, November 14, 1913 — Single track extending in Grafton street, Menlo street and Longwood avenue, from the former terminus of the railway in Grafton street to a point near West Chestnut street; also single track extending in Ames street, Intervale street, Bellevue avenue and Sawtelle avenue, from North Main street to Albert street, with a diamond turnout in Intervale street. [P. S. C. 226]

Brockton, December 22, 1913 — Single track in Longwood

avenue and West Chestnut street, from a point in Longwood avenue near West Chestnut street to a point in West Chestnut street at Market street. [P. S. C. 226]

Chelmsford, April 17, 1913 — Relocated track and extension of second track in Middlesex street, from Stevens corner to the Lowell line. [R. R. C. 9258]

Chelsea, April 17, 1913 — Relocated double tracks in Garfield avenue from Sagamore avenue to Mills' corner. [R. R. C. 9258]

Chelsea, September 25, 1913 — Double tracks in Broadway, from the Boston and Maine railroad bridge to Green street. [P. S. C. 67]

Chelsea, September 25, 1913 — Single track in Everett avenue, from Spruce street to Elm street. [P. S. C. 67]

Chelsea, September 25, 1913 — Double tracks in Washington avenue, from Heard street to Cary square. [P. S. C. 67]

Dighton, August 19, 1913 — Relocated single track and turnout in Somerset avenue, Elm street and on private land near Elm street. [R. R. C. 9258]

Essex, September 25, 1913 — Single track in Eastern avenue, from near Water street to the Gloucester line. [P. S. C. 67]

Fall River, November 20, 1913 — Single track in County street, between the former terminus of the track in Eastern avenue and Horton street. [P. S. C. 230]

Georgetown, September 30, 1913 — Single track in Main street, over the tracks of the Boston and Maine railroad, and special curve branch-off to car barn. [P. S. C. 68]

Gloucester, April 22, 1913 — Double tracks in Main street, between Pleasant and Elm streets. [R. R. C. 9258]

Groveland, April 17, 1913 — Single track and turnout in Salem street, South Groveland, from a point near Parker's corner easterly. [R. R. C. 9258]

Haverhill, April 17, 1913 — Relocated tracks in the Boston road (state highway) from Ward Hill post-office to the North Andover line. [R. R. C. 9258]

Haverhill, June 4, 1913 — Double and single tracks in Groveland street between Keeley and Spruce streets, and two hundred twenty feet of single track in Groveland street at Lincoln avenue. [R. R. C. 9258]

Hingham, April 17, 1913 — Extension of track in Downer avenue (Crow Point) to property of the Nantasket Beach Steamboat Company, and single track and turnout in Main street from Cole's turnout to near Central street. [R. R. C. 9258]

Ipswich, August 15, 1913 — Relocated tracks in Central street, from Lord square to Choate bridge. [P. S. C. 75]

Lowell, April 17, 1913 — Relocated track and construction of turnout in Pine street, from Stevens street to Liberty street; tracks in Pawtucket street from Merrimack street to School street; double tracks in Middlesex street at the Chelmsford line; single track and turnout in Church street between George street and Lawrence street. [R. R. C. 9258]

Lowell, September 25, 1913 — Double tracks in Appleton and Chelmsford streets. [P. S. C. 67]

Lynn, April 17, 1913 — Turnout in Eastern avenue at Oakwood avenue, and double track curve at Franklin street and Western avenue. [R. R. C. 9258]

Lynn, June 16, 1913 — Double and single tracks in Boston street from the Boston and Maine railroad at the East Saugus station to Summer street, and double tracks in Summer street from Boston street to Little River bridge. [R. R. C. 9258]

Lynn, August 12, 1913 — Single track and turnout in Lynnfield street, from St. Mary's cemetery to Severance street. [P. S. C. 75]

Lynn, Saugus, July 22, 1913 — Double tracks in the Salem turnpike in Saugus and in Western avenue in Lynn, on and adjacent to the Fox Hill bridge over the Saugus river. [P. S. C. 25]

Lynn, September 25, 1913 — Double and single track in Boston street, from Myrtle street to Cottage street. [P. S. C. 67]

Lynn, September 25, 1913 — Double and single track in Essex street, from Eastern avenue to the Swampscott line. [P. S. C. 67]

Malden, April 17, 1913 — Double tracks in Ferry street from Judson square to Salem street. [R. R. C. 9258]

Marblehead, June 2, 1913 — Single track at Pleasant and Washington streets. [R. R. C. 9258]

Melrose, June 16, 1913 — Crossover, 260 feet of double track, and single track branch-off, in Main street at Green street and between Porter and Emerson streets. [R. R. C. 9258]

Methuen, June 4, 1913 — Double tracks in Broadway, across and on either side of Spicket river bridge. [R. R. C. 9258]

New Bedford, April 17, 1913 — Turnout in Acushnet avenue near Middle road, and relocated track and construction of turnout in Acushnet avenue near Sylvan grove. [R. R. C. 9258]

Quincy, June 2, 1913 — Relocated track in East Squantum street, from Quincy Shore reservation to Dorchester street. [R. R. C. 9258]

Quincy, September 30, 1913 — Single track and turnout in Cod-

lington street, between Woodward avenue and Valley street, and single track in Sea street. [P. S. C. 67]

Reading, April 17, 1913 — Single track in Minot street and Lincoln avenue, from Minot street to Washington street; single track in High street, from Lowell street to Middlesex street; single track in Salem street, from Pine street to a point 1,342 feet westerly. [R. R. C. 9258]

Rockland, April 17, 1913 — Relocated tracks and side turnout in North avenue between the Abington line and Division street, and branch-off in East Water street. [R. R. C. 9258]

Rockland, June 2, 1913 — Relocated tracks in Central and Water streets at the Abington town line. [R. R. C. 9258]

Rockport, September 25, 1913 — Single track in Granite street, from Pigeon Cove turnout to Gott avenue. [P. S. C. 67]

Salem, April 22, 1913 — Relocated tracks in Loring avenue, from the Swampscott line to Cedar avenue; and relocated double tracks in Fort avenue, from the city playground to Harbor View avenue. [R. R. C. 9258]

Saugus, April 22, 1913 — Relocated tracks in Lincoln avenue. [R. R. C. 9258]

Stoneham, June 4, 1913 — Single track and turnout in Main street from Elm street to a point near George street. [R. R. C. 9258]

Swampscott, June 4, 1913 — Single track in Essex street near Elm place, and single track and turnout in Essex street from Danvers street to a point east of the cemetery. [R. R. C. 9258]

Weymouth, June 2, 1913 — Relocated tracks and extension of side turnout in Middle, Commercial and North streets, from Central square to Weymouth Heights turnout; relocated tracks in Washington, Hunt and Front streets, from Lincoln square to pole M-2656. [R. R. C. 9258]

Weymouth, August 25, 1913 — Relocated single track in Bridge street, near the Weymouth Back river bridge, and over said bridge from the northerly side of the river to the Hingham town line. [P. S. C. 67]

Winchester, June 2, 1913 — Extension of turnout in Church street at Wedgemere avenue, extension of turnout in Main street at Glenwood avenue and extension of turnout in Main street at Elmwood avenue. [R. R. C. 9258]

Winchester, September 25, 1913 — Single track in Cambridge street, from the Arlington town line to state highway station 9 + 0. [P. S. C. 67]

Woburn, June 2, 1913 — Extension of turnout in Main street at Fowle street, and single track branch-off from the track in Main street through Mann's court, a distance of 360 feet. [R. R. C. 9258]

Berkshire Street Railway Company.

Great Barrington, October 20, 1913 — Relocated single track in the village of Housatonic, from a connection with the old line at a point near Front street, opposite Pleasant street, thence extending easterly under the tracks of the New York, New Haven and Hartford railroad and crossing East Main street to Park street, thence along the northerly side of Park street as now relocated and crossing the Housatonic river and the tail race of the Monument mills to a point in Park street at the switch leading to the car barn of the company, the length of said track being about 440 feet. [P. S. C. 101]

Pittsfield, January 1, 1913 — Turnout in North street at Pon-toosuc lake, and turnout in Woodleigh avenue east of Gale avenue. [R. R. C. 9163]

Boston and Worcester Street Railway Company.

Framingham, January 21, 1913 — Single track, extending from the main track in Concord street, in South Framingham, across said street to Howard street, and in Howard street a distance of about four hundred feet, with spur track, one hundred feet long. [R. R. C. 9151]

Natick, January 21, 1913 — Single track extending from a connection with the track in Washington street, across the easterly side of said street a distance of about fifty-five feet to private land. [R. R. C. 9151]

Interstate Consolidated Street Railway Company.

Attleborough, August 12, 1913 — Side turnout in Mill street. [P. S. C. 45]

Attleborough, August 19, 1913 — Turnout in West street. [P. S. C. 79]

Lowell and Fitchburg Street Railway Company.

Westford, April 24, 1913 — Branch-off from the track in Groton road to the private track of the H. E. Fletcher Company on private land. [R. R. C. 9308]

Massachusetts Northeastern Street Railway Company.

Salisbury, September 16, 1913 — Relocated single track, including one turnout, in Salisbury Beach road, extending from a point about 219 feet northeasterly from the Center, so-called, to the boundary line between Massachusetts and New Hampshire, a total distance of about 10,715.91 feet; also section of single track, extending from a point about two hundred nineteen feet northeasterly from the northeasterly line of the highway leading to Salisbury Beach, and extending by a curve in a westerly direction to a point in said highway about 284 feet distant from the center line of the new highway. [P. S. C. 139]

Milford, Attleborough and Woonsocket Street Railway Company.

Wrentham, November 11, 1913 — Side turnout, partly in the highway to Lake Pearl and partly upon private land. [P. S. C. 202]

Northampton Street Railway Company.

Northampton, January 2, 1913 — Turnout in the River road near the village of Leeds; and relocated track in Pleasant street, from a point about one hundred ninety feet south of Holyoke street to Wright avenue, and in Wright avenue to a point about sixty feet north of the bridge over Mill river. [R. R. C. 9134]

Northampton, June 16, 1913 — Second track, in Locust street, from a junction with other track of the company at a point about twenty feet west of the junction of the Elm and Locust street lines, westerly a distance of about 1,240 feet to Hatfield street, thence over private land about 140 feet to its junction with other double track of the company near the car barns. [R. R. C. 9358]

Northern Massachusetts Street Railway Company.

Athol, June 4, 1913 — Single curved track, from the main line in School street, at a point about two hundred feet west of the Boston and Maine railroad bridge, to private land. [R. R. C. 9385]

Orange, August 27, 1913 — Single track, beginning in the Athol road, at a point nearly opposite the entrance to Brookside park, thence curving to the left and extending in a northeasterly direction on private land, the length of said track in the highway being about fifty feet, and on private land about four hundred feet. [P. S. C. 60]

Templeton, July 22, 1913 — Single track extension of side track leading to Wheeler and McGowan Company's mill at East Templeton. [P. S. C. 4]

Springfield Street Railway Company.

Agawam, June 16, 1913 — Double tracks in the state highway, from the main track at a point about two hundred ninety-nine feet north of the Connecticut line northerly a distance of about 1,426 feet. [R. R. C. 9367]

Agawam, July 22, 1913 — Double tracks, from the north end of Todd's turnout in Main street to a connection with the single track of the company, a distance of about 1,991 feet. [P. S. C. 22]

Chicopee, December 23, 1913 — Double and single tracks in Broadway, extending from Monroe street northerly a distance of 1,759 feet to a point in Broadway opposite Summer street. [P. S. C. 261]

Longmeadow, November 3, 1913 — Single track in Main street, from a connection with the double track line of the company at a point about three hundred fifty feet south of Maple road, southerly a distance of about 2,930 feet to the Connecticut state line, connecting with the tracks of the Hartford and Springfield street railway, with turnout extending from a connection with the tracks of the Hartford and Springfield street railway at the state line, northerly in Main street a distance of 480 feet, and 75 feet of track extending from the above mentioned track, across Main street to the car barn tracks on the south side of Main street north of the state line. [P. S. C. 156]

Springfield, January 30, 1913 — Turnout in Liberty street, from a point in said street about sixty-two feet west of Wolcott street easterly a distance of about three hundred sixty feet. [R. R. C. 9165]

Springfield, January 30, 1913 — Turnout, three hundred fifty feet long, in Liberty street, between the "camp ground" and Imperial park. [R. R. C. 9166]

Springfield, May 28, 1913 — Single track and siding, extending in St. James avenue from a point about fifty feet north of the bridge over the Boston and Albany railroad southeasterly a distance of about eight hundred ten (810) feet to a connection with other track of the company in St. James avenue. [R. R. C. 9051]

Springfield, September 16, 1913 — Double tracks, extending in St. James avenue from a point in said avenue about forty-five feet easterly of the bridge over the New York, New Haven and Hartford

railroad easterly a distance of about 1,250 feet, to a connection with the double track section of the railway. [P. S. C. 88]

Springfield, November 3, 1913 — Double tracks in Main street, formerly called North Main street, from a point about two hundred thirty feet north of Wason avenue northerly a distance of about 580 feet to a point about one hundred twenty feet from the Chicopee line. [P. S. C. 169]

Springfield, December 22, 1913 — Double tracks in that portion of Main street formerly called North Main street, from Grove street northerly a distance of about 3,280 feet to a point in Main street about two hundred thirty feet north of Wason avenue. [P. S. C. 219]

Springfield, December 23, 1913 — Turnout, four hundred feet long, in Sumner avenue, from near Lyndale avenue easterly to a point near White street. [P. S. C. 235]

Ware, March 17, 1913 — Turnout, three hundred ninety-two feet in length, in the Palmer road, south of Gibbs underpass. [R. R. C. 9119]

Westfield, January 2, 1913 — Second track in Main street, from Park square easterly to a point opposite Clinton avenue; cross-over in Park square; and second track extending from the new track in Main street, opposite Mechanic street, southerly a distance of about eighty-one feet to the south line of Main street. [R. R. C. 9120]

Westfield, July 22, 1913 — Turnout, about four hundred feet long, in Western avenue, near Kensington avenue. [P. S. C. 23]

Westfield, November 24, 1913 — Turnout in Court street, from a point about one hundred feet east of West Silver street easterly a distance of about 417 feet. [P. S. C. 185]

West Springfield, July 22, 1913 — Double tracks, from the north end of Phillips turnout, near the south end of River street, and extending in said street a distance of about nine hundred eighty-five feet to a connection with the single track of the company. [P. S. C. 27]

West Springfield, December 23, 1913 — Crossover in Westfield street, extending from the northerly track in said street, at a point about 265 feet east of Lancaster avenue, easterly a distance of about sixty-four feet to a connection with the southerly track. [P. S. C. 249]

Union Street Railway Company.

New Bedford, November 3, 1913 — Extension of track in Rivet street, from Purchase street (formerly called Fourth street) to Bolton road, with connecting curves at Purchase street and at Acushnet avenue. [P. S. C. 168]

Warren, Brookfield and Spencer Street Railway Company.

West Brookfield, November 19, 1913 — Single spur track in the state highway near Ware street, extending from a point on the main track in a westerly direction a distance of about 100 feet. [P. S. C. 221]

West End Street Railway Company.

Arlington, February 7, 1913 — Relocated double tracks in Massachusetts avenue between Arlington Heights and Broadway, and a short section of third track at Arlington Centre. [R. R. C. 9137]

Boston, April 3, 1913 — Double tracks in Exeter street, St. James avenue and Arlington street, and curved tracks from Berkeley street to St. James avenue. [R. R. C. 9293]

Boston, June 18, 1913 — Relocated tracks in Washington street and Columbus avenue, Roxbury district, including crossover in Washington street, and single curved track into the old car barn;

Relocated tracks at Massachusetts and Huntington avenues;

Relocated easterly track in Centre street, Roxbury district, between Linwood street and a point near Columbus avenue;

Relocated tracks in Dudley street, Roxbury district, between Guild row and Harrison avenue, including the special work at Warren and Dudley streets, and double curves into Harrison avenue;

Relocated tracks in Dudley street, Dorchester district, between Magazine street and Uphams corner;

Curved track in Washington street, West Roxbury district, from the outbound main track to the Forest Hills car house yard;

Relocated tracks in Washington street, between Eliot street and Dover street (excepting on bridge over the Boston and Albany railroad), including the special work and double curved tracks into Broadway;

Relocated tracks in Washington street, Dorchester district, between Blue Hill avenue and Bowdoin street, including the special work at and double tracks into Columbia road and double curved tracks into Bowdoin street;

Relocated tracks at Park street and Geneva avenue, Dorchester district, including single curve track into the car barn and crossover in Park street. [R. R. C. 9395]

Boston, June 27, 1913 — Single track curve at Brookline and Longwood avenues; single curved track in Arlington avenue, Charlestown, to property of the company. [R. R. C. 9411]

Boston, July 22, 1913 — Four curved tracks extending from the

present tracks in Geneva avenue, near Greeley street, to property of the company, with a crossover in said avenue near Greeley street, connecting the two main line tracks. [P. S. C. 26]

Boston, October 17, 1913 — Temporary double tracks at the Public Garden entrance to the subway, extending from a point in Arlington street, south of Boylston street, to and across Boylston street, thence upon land taken by the Boston Transit Commission, to a connection with the tracks on the incline to the subway. [P. S. C. 177]

Boston, November 6, 1913 — Double tracks in Saratoga and Bennington streets, East Boston, from a point in Saratoga street about two hundred feet west of Boardman street to a point in Bennington street near Breed street, with crossover near Breed street. [P. S. C. 183]

Brookline, June 18, 1913 — Relocated double tracks in Boylston street between Washington and Cypress streets, including crossover and double curved tracks into Cypress street; relocated double tracks in Washington street near Beacon street and in Beacon street near Washington street. [R. R. C. 9396]

Cambridge, June 27, 1913 — Curved tracks in Massachusetts avenue, at the North Cambridge car barn, to property of the company, and crossover in Massachusetts avenue north of said curved tracks. [R. R. C. 9411]

Chelsea, June 18, 1913 — Curved track at Eastern and Central avenues. [R. R. C. 9396]

Everett, June 18, 1913 — Relocated tracks in Main street between Oakes street and Appleton street, and relocated double curved tracks at Chelsea and Ferry streets. [R. R. C. 9396]

Malden, June 18, 1913 — Relocated tracks in Pleasant street, between Evelyn place and the Medford line. [R. R. C. 9396]

Somerville, June 18, 1913 — Crossover in Medford street near Broadway;

Relocated double tracks in Webster avenue at Newton street, with double track branch-off into Newton street running into single track;

Relocated double tracks in Somerville avenue from Medford street to Union square and double track branch-off into Medford street;

Relocated westerly track in Somerville avenue between Loring street and Elm street;

Relocated double tracks in Holland street between Thorndike and Moore streets. [R. R. C. 9396]

Worcester Consolidated Street Railway Company.

Lancaster, August 12, 1913 — Turnout in the Lancaster road, opposite the Iver Johnson estate. [P. S. C. 63]

Northbridge, January 2, 1913 — Turnout extending in the Providence and Worcester road from a point near Riverdale road northerly a distance of about three hundred twenty-five feet. [R. R. C. 9170]

Uxbridge, November 11, 1913 — Double connection with the tracks of the Milford and Uxbridge street railway on private land near the Blackstone river and a single connection in Mendon street south of Capron street, and relocated track in Uxbridge Center square. [P. S. C. 181]

Worcester, January 2, 1913 — Tracks from a point in Park street, near Washington street, through Green street to a point near Temple street, a distance of six hundred fifty feet; from a point in Trumbull square into Trumbull street, about eighty-one feet; and from a point in Trumbull square to a point in Franklin street opposite Bartlett street, a distance of about one hundred seventy feet. [R. R. C. 9103]

Worcester, January 21, 1913 — Double curved tracks in Green street, opposite Goddard street, extending from the main track to private land. [R. R. C. 9171]

Worcester, June 27, 1913 — Turnout in Lincoln street, opposite the main entrance of the Worcester golf links. [R. R. C. 9397]

Worcester, June 27, 1913 — Turnout in Hamilton street, northeast of Harrington way. [R. R. C. 9421]

Worcester, August 7, 1913 — Single track in Webster street, from a point opposite Hope avenue southwesterly a distance of about six hundred ninety-three feet. [P. S. C. 8]

Worcester, August 7, 1913 — Single track in Pleasant street, connecting with the present tracks of the company in said street, and extending in Mower street and upon private land and thence in Pleasant street, the total length of said track, including a turnout in Mower street, being about 4,750 feet. [P. S. C. 32]

Worcester, August 12, 1913 — Double tracks in Portland and Southbridge streets, near Madison square. [P. S. C. 46]

Worcester, August 27, 1913 — Double tracks in Franklin street, from a point near Main street easterly to Salem square. [P. S. C. 96]

Worcester, December 23, 1913 — Turnout in Vernon street, between Montrose street and Euclid avenue. [P. S. C. 259]

RETURNS—RAILROAD AND RAILWAY, ETC.

Circular to the presidents and directors of street railway companies relative to annual returns.

The Board hereby notifies you that the next blank form for returns of street railway companies will contain pages for the history of the company and instructions for answering the questions in relation to same.

A copy of the questions and instructions for answering the same will be found on the inside pages of this circular.

By order of the board of railroad commissioners,

CHARLES E. MANN,

FEBRUARY 10, 1913.

[R. R. C. 9238]

Clerk.

INSTRUCTIONS FOR ANSWERING QUESTIONS ON OPPOSITE PAGE.

There should appear on the opposite page entries or notations sufficient to show that no question or item has been overlooked. The word "None" may be used wherever applicable. If returns are not made as required, some reference, as, "See page 2," should be made to this page, on which a brief statement of the reason for the variation or omission should be given.

Answers to the questions asked should be made in full. In case any changes of the nature referred to under question 4, 5 or 6, on the opposite page, have taken place during the year covered by this report, they should be explained in detail.

1. Give in full the exact name of the corporation holding the franchise under which operations are carried on. Use the word "The" or "Company" only when it is a part of the corporate name. Be careful to distinguish between *railroad* and *railway*. The corporate name should also be given uniformly throughout the report, notably on the cover and title page. If the report is made by receivers, trustees, a committee of bondholders, or individuals otherwise in possession of the property, state names and facts with precision.

2. If incorporated under a special charter, give date of passage of

the act; if under a general law, give date of filing certificate of organization; if a reorganization has been effected, give date of reorganization. If a receivership or other trust, give also date when such receivership or other possession began.

3. Give reference to laws of each state under which organized, also amendments to charter.

4. Give reference to special or general laws under which each consolidation or lease was effected. Specify state under the laws of which each company consolidated or leased to the present company was organized; give reference to the charters of each, and all amendments to them.

5. Give the date of each consolidation or lease and date of any order of the board of railroad commissioners approving the same.

6. State the occasion for the reorganization, whether by reason of foreclosure of mortgage, or otherwise, according to the fact. Give date of organization of original corporation and refer to laws under which organized.

EXPLANATORY REMARKS.

HISTORY.

1. Exact name of common carrier making this report. (See instructions, page 2.)

2. Date of organization.

3. Under laws of what state organized? If more than one, name all. Give reference to each statute and all amendments thereof.

4. If a consolidated company, name the constituent companies. Give reference to charters of each, and all amendments.

5. Date and authority for each consolidation.

6. If a reorganized company, give name of original corporation and refer to laws under which it was organized.

7. What carrier operates the road of this company? (For companies not making operating reports.)

Circular to the presidents and directors of the several railroad corporations.

Blank forms for the annual returns of railroad corporations to this Commission, as required by chapter 463, Acts of 1906, part I, section 20, part II, sections 248 and 250; chapter 502, Acts of 1909,

section 1; chapter 558, Acts of 1910, section 1, and chapter 784, Acts of 1913, section 12, are herewith transmitted.

The form of return is that prescribed by the Interstate Commerce Commission for the year ending June 30, 1913.

The return should be signed and sworn to by the directors, treasurer and chief accounting officer of the corporation or company, and the page in the return for so doing will be found on blank forms A and B between pages 118 and 119, and on blank form F between pages 68 and 69. The return should also be signed and sworn to by the president and officer in charge of the accounts upon the page requiring their signatures.

Send with the return "copies of all contracts or leases made with other railroad corporations during the year," as required by chapter 463, Acts of 1906, part II, section 248.

The statutes require that the annual return shall be transmitted to the Commission on or before the thirtieth day of September; under a penalty of fifty dollars for each day's neglect, unless the time is extended by the Commission to such date subsequent thereto as it may, for good cause shown, fix in any case.

Inquiries and other communications in relation to the returns should be addressed to this office.

By order of the Public Service Commission,

CHARLES E. MANN,

SEPTEMBER 9, 1913. [P. S. C. 158]

Secretary.

Circular to the presidents and directors of the several companies in Massachusetts engaged in the transmission of intelligence by electricity.

Forms for the annual return required by the Acts of 1906, chapter 433, section 8, are herewith sent to you.

Under authority of said act, the Public Service Commission has designated that the returns shall relate to the doings for the year ending *June 30, 1913*, of all companies engaged in the transmission of intelligence by electricity.

The law specifies that the annual returns shall be submitted to the Commission on or before the *first day of October*, and provides certain penalties for each day's neglect thereafter. (See excerpts on inside of back cover.)

When a question cannot be answered, the space provided for the answer should be filled with a dash (——) to indicate that the question has not been overlooked.

For the Public Service Commission,

JULY 25, 1913. [P. S. C. 158] CHARLES E. MANN,
Secretary.

Order of the Commission relative to supplement to, and amendment of, the annual returns of railroad, street railway and other corporations and associations.

In executive meeting of the Commission held this day the following action was taken:

Ordered, That every company or association which has made returns to this Commission for the year ending June 30, 1913, shall, on or before January 1, 1914, supplement its last annual return by stating, under oath of its president or some other executive officer, the amount of salary or other compensation exceeding six thousand dollars (\$6,000.00) per year paid to each officer or employee for said year, giving the name and title of such officer or employee.

Ordered, That the requirements for the annual returns be amended so as hereafter to require every company subject to the jurisdiction of the Commission to make returns of all salaries or other compensation paid to officers or employees in excess of six thousand dollars (\$6,000.00) per year, with the names and titles of such officers or employees.

By order of the Commission,

DECEMBER 2, 1913. [P. S. C. 158] ANDREW A. HIGHLANDS,
Secretary.

Order of the Commission relative to sworn quarterly statements as to payments by railroad, street railway and other corporations and associations subject to its supervision.

In executive meeting of the Commission held this day the following action was taken:

Ordered, That each railroad, street railway and other corporation

and association subject to the supervision of this Commission, shall from and after October 1, 1913, submit to the Commission in such form as the Commission shall prescribe, a sworn quarterly statement showing in detail:

(a) All payments made by it, directly or indirectly, to any newspaper, periodical or advertising agency, or to any employee thereof or writer therefor, together with all other payments of every kind for advertising or other publicity, excluding, however, expenses incurred for the printing and distribution of time-tables, telephone directories, circulars and pamphlets of information, issued directly by such company to its patrons and to the general public in the name of the company or of one of its officers.

(b) All salaries and expenses paid to and through its regular legal department to attorneys resident in Massachusetts or doing business for the company in Massachusetts, not, however, including actual payments for damages to person or property.

(c) All payments for legal services to any person resident or doing business for the company in Massachusetts, although not regularly connected with its legal department, and any expenses made and paid through such person, excluding, as in (b), damages paid.

(d) All payments for services of any character rendered to such corporation in connection with legislation in Massachusetts, or the action of the Legislature of Massachusetts, or of any committee or member thereof, or of any Massachusetts public officer or board, whether state, county or municipal.

(e) All sums paid directly or indirectly for the purpose of assisting or influencing in any way the nomination or election of any person to any public office in Massachusetts, or for the purpose of assisting or defeating any political party, political faction or political or governmental policy in Massachusetts.

(f) A sworn statement of all contracts or agreements made with reference to advertising, publicity, legal work or work in any way connected with legislation or contemplated legislation in Massachusetts, or with influencing or attempting to influence or inform public or legislative opinion in Massachusetts, together with copies of all such contracts or agreements as may be in writing and copies of all votes of directors, committees or officers of any company or association in respect to the same.

(g) All payments not specifically covered by the above, charged in the case of steam railroads to "Other Expenses" under the heading of "General Expenses," and in the case of street railways to "General Expenses" under the heading of "General and Miscel-

laneous Expenses." In the case of other corporations expenses of the same general nature, — to be hereafter more specifically designated by the chief accountant of this Commission.

Such statement shall show in detail the name and address of the person, firm or corporation to whom the payments shall have been made, the amounts and dates of payment and the nature and character of the services rendered.¹

Provided that:

(1) Any company or association having an annual gross income of less than \$50,000 may, on application, in the discretion of the Commission be excused from the operation of this order on such substitute terms as the Commission may designate.

(2) Any corporation or association having an annual gross income greater than \$50,000 may, for good cause shown, on application to the Commission, be excused from the operation of the whole or any part of the foregoing order, the Commission reserving the right to make for such corporation any such substitute order as the special conditions and circumstances may require.

By order of the Commission,

ANDREW A. HIGHLANDS,

NOVEMBER 24, 1913.

[P. S. C. 173]

Secretary.

EXTENSION OF TIME FOR FILING ANNUAL RETURNS.

Under various dates, the Commission has extended the time for filing the annual returns of the following companies, good cause having been shown therefor:

Railroad Corporations.

Attleborough Branch	Boston and Maine
Boston and Albany	Boston and Providence
Boston and Albany (New York	Boston, Revere Beach and Lynn
Central and Hudson River, les- see)	Central New England
Boston and Lowell	Chatham
	Chester and Becket

¹ On December 29, 1913, the Commission voted that until otherwise ordered each railroad, street railway and other corporation and association subject to the supervision of this Commission should have forty-five days after the expiration of each quarter year in which to make the sworn quarterly statement required by the above mentioned order.

Connecticut River	New York, New Haven and Hart-
Fitchburg	ford
Grafton and Upton	North Brookfield
Hampden	Norwich and Worcester
Hartford and Connecticut Western	Old Colony
Holyoke and Westfield	Pittsfield and North Adams
Hoosac Tunnel and Wilmington	Providence, Webster and Spring-
Horn Pond Branch	field
Lowell and Andover	Providence and Worcester
Nantucket	Southern New England
Nashua and Acton	Stony Brook
Nashua and Lowell	Union Freight
New London Northern	Vermont and Massachusetts
New London Northern (Central	Ware River
Vermont, lessee)	

Street Railway Companies.

Amesbury and Hampton	Massachusetts Northeastern
Bristol and Norfolk	Norfolk and Bristol
Citizens Electric	Northern Massachusetts
Conway Electric	Norwood, Canton and Sharon
East Taunton	Point Shirley
Haverhill and Amesbury	Taunton and Pawtucket
Haverhill and Plaistow	Worcester and Shrewsbury R.R.
Lawrence and Methuen	Worcester and Shrewsbury St. Ry.
Lowell and Pelham	

Telephone and Telegraph Companies.

Heath Telephone Company
 Bernardston and Gill Telephone Company
 Blandford and Chester Mutual Telephone Company
 Columbia and Rensselaer Telephone and Telegraph Company
 Crescent Telephone Company
 Farmers' Mutual Telephone Company of Bristol County
 Granby Telephone and Telegraph Company
 The Highland Telephone Company
 Littleton Telephone Association
 Northfield Farms Telephone Company
 North Orange Telephone Company
 E. M. Partridge
 Western Union Telegraph Company

Express Companies.

Buswell's Express	Hilton Express Company
Byam and Company's Express	Jenkins and Simmons Express
Carter, Russell and Company, Inc.	Company
Cumming's Express	Kidder Brothers Express
H. K. Cushing's Express	Litchfield's Express
Dart's Express Company	McKee's Express
Dennie's Stoughton Express	Parker's Express
Drew's Express	Pettengell and Barry Express
Elliott and Ward Express Com-	Presson's Express
pany	Smith's Express Company
Estabrook Express Company	Smith and Company's Express
Faunce's Express	Wheeler's Express Company.
Gibbs Express Company	

[P. S. C. 145]

SPRINGFIELD RIVER FRONT.

Report of the board of railroad commissioners sitting as a special commission in the matter of the improvement of the river front of the city of Springfield under the provisions of chapter 551 of the Acts of 1907 as amended by chapter 352 of the Acts of 1910.

COMMONWEALTH OF MASSACHUSETTS.

HAMPDEN, SS.

SUPERIOR COURT.

In the above entitled matter the members of the board of railroad commissioners were appointed a commission under the provisions of chapter 551 of the Acts of 1907 by the Superior Court for the county of Hampden.

The Board has held several public hearings, of which due notice was given, in the city of Springfield and at the office of the Board, 20 Beacon street, Boston. At such hearings the parties were represented as follows: for the Commonwealth, Assistant Attorney-General Frederic B. Greenhalge; for the city of Springfield, City Solicitor Frederick G. Wooden and City Solicitor James L. Doherty; for the New York, New Haven and Hartford Railroad Company, Josiah H. Benton and James R. Dunbar; for the Boston and Maine Railroad, William H. Coolidge; for the Boston and Albany Railroad Company and the New York Central and Hudson River Railroad Company, Samuel J. Elder and William H. Brooks.

After consideration of all the evidence and arguments presented, the Board caused to be prepared a set of plans for the improvement of the river front of the city of Springfield in accordance with the provisions of the act. As the result of several conferences between the Board and representatives of the city of Springfield and of the railroad companies concerned, it appears that these plans do not meet with the approval of any of the parties in interest, but none of said parties has submitted or offered to submit any alternative plan or plans within the provisions of the act.

The Board, deeming the provisions of said act to be mandatory and to vest in it no discretion to pass upon the expediency of the general scheme outlined by said act, approves of the plans which

it has caused to be prepared in the performance of the duty imposed by said act, and which are submitted as a part of this report, only so far as such plans seem to be the best that are practicable within the terms of the statute.

In the discharge of said duty we, the subscribers, constituting the board of railroad commissioners, hereby return our decision of all the matters referred to us under the provisions of said act. We prescribe that the alterations and extensions specified in said act shall be made in the manner and within the limits shown upon a set of plans herewith submitted, namely:

(1) Plan of Lyman street elevation of the Springfield passenger station.

(2) Springfield passenger station — general plans, street level and track level.

(3) Plan of Springfield station — transverse section, Lyman street building and Liberty street building.

(4) Plan of extension of Dwight street, across the land of the Boston and Albany Railroad Company from Lyman street to Liberty street.

(5) Plan of extension of Water street across the land of the Boston and Albany Railroad Company from Railroad street to Cypress street.

(6) General map of the proposed river front improvement.

(7) Plan showing certain profiles of the proposed railroad connections.

(8) Plan showing profiles of proposed lines connecting the Boston and Maine railroad with the New York, New Haven and Hartford railroad and the Boston and Albany railroad with the New York, New Haven and Hartford railroad, and alteration of grade of Boston and Albany railroad.

Said plans, together with all lines, marks, figures and directions thereon, are to be taken, together with our report and decision as a part hereof.

Union Station.

Plans 1, 2 and 3 indicate alterations in the Union passenger station and in its approaches and grounds as required by section II of said act.

The ramp constituting the existing approach on Lyman street is to be removed and a new story built beneath the present station, substantially on the same level as Lyman street. The floor of the present waiting room to be removed so as to make a waiting room with a greatly increased height as compared with the present room.

From the floor level of the waiting room, which will contain the

necessary ticket offices and other accommodations, there is projected a subway leading beneath the tracks to a station building on Liberty street, containing a smaller waiting room, mail room, express room, restaurant and the necessary station accommodations.

Within the present station there are four through tracks. The new plan provides for six such tracks with stub tracks at the end. Access to the platforms between the trains would be had from the subway. The plans indicate the changes and the accommodations afforded. The tracks of the Boston and Albany railroad to be raised westerly from the Union station to substantially elevation 115 by city data, the bridge across the river being raised to meet the new elevation.

Railroad: Connecticut State Line to West Springfield.

On the general map there will be found the layout of a line as prescribed by section III of the act, being a railroad connection from the state line of Connecticut on the west side of the Connecticut river, to the west approach of the new railroad bridge over the river, and thence over said bridge to a connection with the Boston and Albany railroad at or near the present connection. This line is described more particularly as follows:

Beginning at a point known as station 0 + 00, said point located on the state line between Massachusetts and Connecticut, being about 400 feet west from the west bank of the Connecticut river, thence running N. 10° 20' E. along a tangent to station 8 + 27.99, thence along a 1° curve to the right to station 17 + 29.83, thence N. 19° 20' E. along a tangent to station 34 + 64.67. At station 30 + 77 the line crosses Three Mile brook.

From station 34 + 64.67, running along a 2° curve to the left to station 47 + 12.63, thence N. 5° 10' W. along a tangent to station 191 + 38.88. The line passes beneath the state road at station 63 + 47.33, Main street at station 87 + 56.59, Adam street at station 105 + 89.16, Elm street at station 132 + 50.26; all street levels of said streets being 21.5 feet above base of rail; crosses Three Mile brook at stations 139 + 26, 145 + 02, 148 + 48 and 156 + 99, and passes beneath Cooper street at station 188 + 47.81, the street level being 39 feet above base of rail.

From station 191 + 38.88, running along a 3° curve to the right to station 218 + 49.54, thence N. 66° 10' E. along a tangent to station 288 + 59.45, the line passes under Main street at station 220 + 54.91, the street level being 21.5 feet above base of rail, crosses over the Westfield river at station 223 + 69.51, over Dyke

avenue (relocated) at station $268 + 63.21$, the street level being 17 feet below base of rail; New Bridge street at station $275 + 77.21$, the street level being 19 feet below base of rail; and Main street at station $288 + 59.45$, the street level being 20 feet below base of rail.

From station $288 + 59.45$ running along a curve parallel to the center line of the Boston and Albany railroad to the west abutment of Connecticut river bridge at station $297 + 67$, crossing the river over a bridge parallel to the present Boston and Albany railroad bridge, the east abutment being at station $310 + 03$, thence the line connects with the tracks of the Boston and Albany railroad near Water street, affording a connection with all tracks in the Union station and through running to the Highland division and the Boston and Maine railroad by a new line to be constructed as described below.

The land to be taken for the above railroad is a strip between lines parallel to the above described center line, with a width of 42 feet on the east side and with a width of 58 feet on the west side of the center line from station $0 + 00$ to station $17 + 29$, thence 56 feet on the east side and 74 feet on the west side to station $34 + 65$, thence 40 feet on the east side and 60 feet on the west side to station $70 + 22$, thence 60 feet on the east side and 70 feet on the west side to station $82 + 82$, thence 35 feet on the east side and 45 feet on the west side to station $103 + 35$, thence 42 feet on the east side and 58 feet on the west side to station $163 + 93$, thence it widens out to 95 feet on the east side and to 105 feet on the west side to station $165 + 83$, thence 95 feet on the east side and 105 feet on the west side to station $191 + 60$, thence gradually narrowing to 42 feet on the east side and 58 feet on the west side to station $195 + 60$, thence 42 feet on the east side and 58 feet on the west side to station $220 + 34$, thence 75 feet on the east side and 105 feet on the west side to the northerly bank of the Westfield river, thence 60 feet on the east side and 70 feet on the west side to station $264 + 68$, thence 50 feet on each side to the Connecticut river, excepting so much of said land as may be occupied by the right-of-way of the Boston and Albany railroad or the streets in West Springfield. In addition to said right-of-way there should be taken, for the purpose of a yard for freight and other terminal facilities, all of the land bounded by the northerly bank of the Westfield river, the westerly side of the above described right-of-way from about station $235 + 00$ to about station $275 + 00$ and the easterly side of Bridge street.

Central New England Railroad Connection.

Section III further prescribes a railroad connection from a point south of the Agawam river from the Central New England railroad to the line to be constructed on the west side of the Connecticut river. The general map accompanying this report shows this line, which is more particularly described as follows:

Beginning at station $0 + 00$ at a point on the Central New England railroad, said point being about 6,650 feet south of Westfield river, thence running along a 3° curve to the right to station $13 + 10$, thence along a tangent N. $59^\circ 30'$ E. to station $56 + 08.56$, the line passes beneath North street at station $33 + 86.08$, 21.5 feet below street level and crosses White brook at station $46 + 82.78$.

From station $56 + 08.56$, running along a 2° curve to the right to station $69 + 29.46$, thence along a tangent N. $85^\circ 30'$ E. to station $199 + 27.59$, thence along a 1° curve to the left to a point at station $221 + 37.62$, said point being station $288 + 59.45$ of the proposed railroad from the Connecticut state line to Springfield via West Springfield. The line passes beneath Maple street at station $120 + 33.32$, 45 feet below street level, at station $143 + 43.47$ above Walnut street, 18 feet above street level, crosses Westfield river at station $145 + 91.83$, River street at station $148 + 09.66$, 50 feet above street level, Hayward avenue at station $165 + 35.06$, 40 feet above street level, Norman street at station $172 + 79.27$, 39 feet above street level, Baldwin street at station $176 + 96.16$, 36 feet above street level, Bosworth street at station $180 + 52.33$, 37 feet above street level, Lowell street at station $187 + 89.36$, 30 feet above street level, and runs along and over Bridge street from station $207 + 71$ to Main street, 18 feet above street level.

The land to be taken for the above railroad is a symmetrical strip with a width on each side of the above described center line of 70 feet from station $0 + 00$ to station $43 + 97$, thence 150 feet to station $47 + 95$, thence 80 feet to station $69 + 55$, thence 150 feet to the westerly side of Maple street at station $120 + 00$, from the easterly side of Maple street at station $120 + 63$, 125 feet to station $133 + 01$, thence narrowing to 50 feet at station $134 + 75$, thence 50 feet to station $143 + 18$, thence 200 feet to the easterly side of River street at station $148 + 35$, thence 100 feet to the westerly side of Hayward avenue at station $165 + 10$, from the easterly side of Hayward avenue at station $165 + 60$, 90 feet to station $168 + 15$, thence narrowing to 85 feet at station $175 + 00$, thence narrowing to 80 feet at station $177 + 50$, thence 80 feet to the westerly side

of Lowell street at station $187 + 55$ and from the easterly side of Lowell street at station $188 + 23$, 65 feet to station $199 + 55$, excepting such lands as may be included within said limits already taken for the right-of-way of the Central New England railroad, or as included in the description above for a line from the Connecticut river to West Springfield.

Highland-Hartford Division.

Section III of the act also prescribes suitable railroad connections in or near Springfield between the Highland division of the New York, New Haven and Hartford Railroad Company and the Hartford division. The general map accompanying this report shows this line, which is more particularly described as follows:

Beginning at a point located on the center line of the main line of the New York, New Haven and Hartford Railroad Company, about 1,400 feet north of the Connecticut and Massachusetts state line, near the easterly bank of the Connecticut river, said point known as station $0 + 00$, running along a $2^{\circ} 30'$ curve to the right to station $23 + 68$, thence along a tangent N. $85^{\circ} 20'$ E. to station $49 + 00$. The line crosses a highway at station $20 + 88$, the road level being 17 feet below base of rail, and a highway at station $47 + 80$, the road level being 18 feet below base of rail.

From station $49 + 00$ running along a 2° curve to the left to station $55 + 00$, thence along a tangent N. $73^{\circ} 20'$ E. to station $133 + 46$. The line crosses a highway at station $87 + 86$, the road level being 21.5 feet above base of rail, crosses Meadow brook at station $109 + 41$, at station $125 + 71$ and at station $127 + 71$.

From station $133 + 46$, running along a 3° curve to the left to station $147 + 68$, thence along a tangent N. $30^{\circ} 38'$ E. to station $155 + 49$, thence along a 2° curve to the right to station $179 + 99$. The line crosses a highway at station $168 + 71$, the road level being 21.5 feet above base of rail.

From station $179 + 99$, running along a tangent N. $79^{\circ} 38'$ E. to station $218 + 83$. The line crosses a highway at station $190 + 71$, the street level being 21.5 feet above base of rail.

From station $218 + 83$, running along a 2° curve to the left to station $247 + 16$, thence along a tangent N. $28^{\circ} 58'$ E. to station $265 + 01$, thence along a 3° curve to the left to station $284 + 46$, at which point the line joins the present Highland division of the New York, New Haven and Hartford railroad.

The land to be taken for the above railroad is a symmetrical strip with a width on each side of the above described center line of 65

feet from station 0 + 00 to station 38 + 10, thence 50 feet to station 55 + 00, thence 65 feet to station 88 + 70, thence 80 feet to station 103 + 70, thence 50 feet to station 133 + 46, thence 80 feet to station 147 + 68, thence 65 feet to station 173 + 70, thence 90 feet to station 185 + 70, thence 65 feet to station 208 + 70, thence 80 feet to station 218 + 83, thence 50 feet to station 228 + 70, thence 80 feet to station 233 + 70, thence 50 feet to station 264 + 70, thence 65 feet to station 284 + 46, excepting such lands as may be included within said limits already taken for the right-of-way for the Hartford division and for the Highland division.

Highland Division — Boston and Maine Railroad.

Section III of the act also prescribes a connection between the Highland division and the Boston and Maine railroad. The general map accompanying this report shows this line, which is more particularly described as follows:

Beginning at a point on the Highland division of the New York, New Haven and Hartford railroad, said point being located about 150 feet east of St. James avenue, and known as station 17 + 00, running along a tangent S. 85° W. to station 55 + 45, thence along a 1° 12' curve to the right to station 102 + 90, the line crosses under St. James avenue, at station 18 + 60, 21.5 feet below street level, over the Boston and Albany railroad tracks at station 35 + 25, 30 feet above same, under Armory street at station 55 + 40, 20 feet below street level, under Liberty street at station 58 + 60, 24 feet below street level and under Carew street at station 88 + 50, 21.5 feet below street level. From station 102 + 90, running along a tangent N. 38° 30' W. to station 135 + 45, thence along a 2° curve to the right to station 161 + 00. The line crosses over Springfield street at station 118 + 50, 18 feet above street level, over the tracks of the Springfield Street Railway Company at station 121 + 60, 10 feet above same, a readjustment of grades being necessary to provide sufficient clearance, and under Atwater terrace at station 127 + 15, 25 feet below street level. From station 161 + 00, running along a tangent N. 11° 30' E. to station 172 + 50, thence along a 1° curve to the left to station 191 + 10, being a point on the Boston and Maine railroad. The line crosses over North Main street (relocated) at station 169 + 65, 18 feet above street level.

The land to be taken for the above railroad is a symmetrical strip with a width on each side of the above described center line of 82.5 feet from station 17 + 00 to station 76 + 70, at station 76 + 70 to station 88 + 70 it is 82.5 feet wide on the east side of said center

line, and on the west side at station 76 + 70 it is 320 feet wide gradually narrowing to 118 feet at station 88 + 70. From the above last named station to station 106 + 00 it is 82.5 feet wide on the east side and 115.5 feet wide on the west side of said center line, from station 106 + 00, 66 feet wide on each side to the easterly side of Atwater terrace station 188 + 00, thence 82.5 feet wide on each side to the Chicopee-Springfield city line, station 144 + 50, thence on the westerly side the land to be taken is bounded by North Main street and on the easterly side by a line parallel and 82.5 feet east of the railroad center line to the end of the line as above described, excepting such lands as may be included within said limits already taken for the right-of-way of the Highland division of the New York, New Haven and Hartford railroad, of the Boston and Albany railroad and of the Boston and Maine railroad, with the exception that the right is secured to construct the line herein described over said railroad lands.

Boston and Maine Railroad Connection.

Section III of the act also prescribes that a connection with the Boston and Maine Railroad shall be preserved to the New York, New Haven and Hartford railroad in or near the city of Springfield. To secure this connection a line is shown on the general map and is more particularly described as follows:

Beginning at a point about 500 feet south of Hayward street and connecting with the main tracks of the Boston and Albany railroad, said point being known as station 50 + 00, thence along a 10° curve to the left to station 56 + 85, thence along a transition curve to the left to station 59 + 20, thence along a 2° 52' curve to the left to station 71 + 55, thence along a tangent N. 53° W. to station 89 + 10, thence by suitable curves to about station 107 + 00, at which point it connects with the connection from the Highland division as described immediately above. The line crosses under Liberty street at station 57 + 50, 21.5 feet below street level; Franklin street at station 64 + 10, 24 feet below street level, and Carew street at station 88 + 70, 29 feet below street level.

The land to be taken for the above railroad is a symmetrical strip with a width on each side of the above described center line of 66 feet from station 50 + 00 to station 76 + 70. The land required north of station 76 + 70 has already been described in the land to be taken for the connection from the Highland division. There are to be excepted such lands as may be included within said limits already taken for the right-of-way of the Boston and Albany Railroad Company.

By the construction of these lines and by the issuing of running rights over the tracks of the Boston and Albany Railroad Company, through the Union station and beyond, it is arranged that all divisions, including the Central New England railroad and the New York, New Haven and Hartford railroad, shall be connected near the city of Springfield, and that a connection with the Boston and Maine railroad will be preserved to them.

Freight Station.

Section III of the act also prescribes the taking of such land, whether heretofore appropriated for other public use or not, for freight and other terminal facilities. In addition to the land for a freight yard in West Springfield the general map indicates the taking of all the land north of Summer street to the land belonging to the Boston and Albany Railroad Company not now belonging to the New York, New Haven and Hartford Railroad Company, so that there may be established on this land a freight house having a size and plan of 700' x 80' and with necessary service and storage tracks for the receipt and delivery of freight both at the said freight house and from and to cars.

Bridge.

Section IV of the act requires the manner and limits within which the bridge of the New York, New Haven and Hartford Railroad Company and its approaches shall be constructed and a description of the line from the Connecticut state line to West Springfield, and prescribes the amount of land required for the said bridge. The bridge itself shall be constructed with two tracks and the elevation of the base of rail on the westerly side of the Connecticut river shall be at least 78 feet above tide water. The bridge is to be supported on two abutments and six intermediate piers, said piers being in a line with the piers of the existing bridge of the Boston and Albany Railroad Company.

Section VII of the act requires the manner and limits within which Dwight street may be extended northerly to Liberty street and Water street be extended northerly to Cypress street, both through the land of the Boston and Albany Railroad Company.

Dwight Street.

Plan 4, hereto attached, indicates the extension of Dwight street so as to give a street with a width of 60 feet, a roadway of 46 feet, and two footwalks of 7 feet each, across the land of the Boston and

Albany Railroad Company from Lyman street to Liberty street, a length of about 380 feet, and with a head room of 14.5 feet beneath the bridge carrying the tracks.

Water Street.

Plan 5, hereto attached, indicates the extension of Water street so as to give a street with a width of 50 feet, a roadway of 37 feet, and two footwalks of 6.5 feet each, across the land of the Boston and Albany Railroad Company from Railroad street to Cypress street, a length of about 578 feet, and with a head room of 14.5 feet beneath the bridge carrying the tracks.

Estimated Cost.

The estimated cost of the above described construction is as follows:

Union passenger station, alterations, ...	\$800,000
Railroad from Connecticut state line via West Springfield to Water street, Springfield, ...	2,017,000
Railroad from Central New England railroad to West Springfield, ...	1,825,000
Railroad connecting Highland and Hartford divisions, ...	675,000
Railroad connecting Highland division with Boston and Maine railroad, and Boston and Albany railroad with Boston and Maine railroad, ...	1,400,000
New York, New Haven and Hartford railroad freight house, round house, yard tracks, etc., ...	600,000
New York, New Haven and Hartford railroad bridge across Connecticut River, ...	700,000
Dwight and Water street extensions, ...	200,000
Raising grade, Boston and Albany railroad, ...	200,000
Interest during construction, ...	500,000
Engineering and administration, ...	500,000
Total, ...	\$9,417,000

Dated this eighth day of March, A.D. 1913.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

[R. R. C. 6884]

Commissioners.

STATIONS AND STATION ACCOMMODATIONS.

RAILROAD.

Complaint of selectmen of Wellesley concerning conditions for handling baggage at the Wellesley station on the Boston and Albany railroad.

Memorandum.

Upon the complaint of the selectmen of the town of Wellesley, transmitting petition to them of representatives of Wellesley College and of the Wellesley Village Improvement Association, with respect to facilities for handling baggage at the Wellesley station on the Boston and Albany railroad, the Board has made a thorough investigation, and has had a conference with Vice-President Hustis of the Boston and Albany railroad.

Following this conference a letter was received from Mr. Hustis, containing suggestions for a change in the method of handling baggage at this station, which would, in his judgment, give more satisfactory results.

The Board is of the opinion that the changes proposed should be given a trial for an experimental period, and the complaint is therefore filed with the understanding that the matter may again be brought to the attention of the Board by any of the parties in interest at any future time.

FEBRUARY 25, 1913. [R. R. C. C-2072]

Petition of patrons of the Boston and Maine railroad, property owners and residents of the town of Sudbury, for the stationing of an agent and better crossing protection at Wayside Inn station.

After hearing and further consideration, the Commission is of the opinion that the amount of travel at the Wayside Inn station on the Central Massachusetts division of the Boston and Maine railroad is not sufficiently large to warrant the employment of a station agent by the company.

It does not appear to the Commission that the public safety requires a flagman to be stationed at this crossing, but we recommend the removal of trees and underbrush which tend to interfere with a clear view of trains approaching this crossing.

For the Commission,

ANDREW A. HIGHLANDS,
DECEMBER 23, 1913. [P. S. C. 200] *Secretary.*

Approval of plan showing additional facilities at the Back Bay station of the New York, New Haven and Hartford railroad.

After examination and further consideration, the approval of the Board is hereby given to plan entitled "N. Y., N. H. & H. R.R., Boston passengers on outbound island platform, Back Bay, Boston, Mass." and dated January, 1913.

Attest: CHARLES E. MANN,
JANUARY 13, 1913. [R. R. C. 9087] *Clerk.*

Approval of plan showing additional facilities at the Back Bay station of the New York, New Haven and Hartford railroad.

The approval of the Board in this matter given under date of January 13, 1913, is hereby amended, so as to read as follows:

After examination and further consideration, the approval of the Board is hereby given to plan entitled "N. Y., N. H. & H. R.R., Boston division, Plan of Proposed Shelter for Passengers on Outbound Island Platform, Back Bay, Boston, Mass. Scale as Indicated. Jan. 1913."

Attest: CHARLES E. MANN,
JANUARY 20, 1913. [R. R. C. 9087] *Clerk.*

Petition of the city council of Boston relative to certain conditions at the Harvard street station on the New York, New Haven and Hartford railroad.

This matter was brought before the Commission through the filing of an order adopted by the city council of Boston, accompanied by a petition of the Harvard Improvement Association and residents of Dorchester.

The petitioners desire the establishment of a direct connection between the Harvard street station and Harvard street, which crosses the tracks of the Boston division of the New York, New Haven and Hartford railroad by an overhead bridge about 450 feet north of the station.

After a public hearing and a view and further consideration,—it is

Ordered, That the New York, New Haven and Hartford Railroad Company furnish a direct connection between the Harvard street station and Harvard street in the Dorchester district of the city of Boston by the construction of steps and inclines to connect said street with the station platforms on both the inbound and outbound tracks, as shown on a blue-print marked "N. Y., N. H. & H. R.R. Boston division, Location at Harvard St. Station, Boston, Mass." and dated May 12 and 13, 1913, on file with the petition, the same to be constructed as soon as weather conditions permit and without making alterations in the highway bridge above referred to.

By the Commission,

ANDREW A. HIGHLANDS,

DECEMBER 10, 1913.

[P. S. C. 19]

Secretary.

STREET RAILWAY.

Petition of the Boston Elevated Railway Company for approval of plans showing proposed changes at its Sullivan square station in Boston.

The annexed plans numbered 35413 and 35414, showing proposed modifications of, and additions to, the car houses and yards of the Sullivan square station of the Boston Elevated Railway Company in the Charlestown district of the city of Boston, and the form and method of construction and the location of additional tracks and structures so as to provide additional sidings and switching tracks for elevated cars and trains, are hereby approved.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

MARCH 29, 1913.

[R. R. C. 9257]

Commissioners.

Petition of board of aldermen of Fall River relative to waiting room accommodations on the Bay State street railway in said city.

The petitioners complain of inadequate waiting room accommodations on the Bay State street railway in Fall River. The present waiting room of the company is located at City Hall square. The petitioners claim that this waiting room is too small and lacks proper sanitary conveniences. At the hearing on this case complaint was also made in regard to the congested traffic in and about City Hall square. Several plans have been under discussion between the city officials and representatives of the company for the relief of this congestion. One plan suggested is the construction of a loop line around City Hall. Negotiations are now pending between the city and the company in regard to this matter. If there should be any new installation of track it may necessitate the removal of the present waiting room or some change in existing facilities. The Commission is of the opinion that any changes in the present waiting room facilities should be deferred until some definite decision is reached in regard to additional track locations at or near City Hall square. The Commission would suggest that when this matter is determined the city authorities confer with the company in regard to the location of a waiting room at a suitable point and with proper facilities. If this matter cannot be adjusted by direct conference between the parties, the petitioners may renew their petition to this Commission.

For the Commission,

ANDREW A. HIGHLANDS,

DECEMBER 31, 1913.

[P. S. C. 325]

Secretary.

SUNDAY TRAINS AND BOATS.

Petition of the Merchants and Miners Transportation Company for authority to run its steamships on the Lord's day.

It appearing to the Board, after consideration, that the public necessity, convenience, health and welfare may reasonably require, within the meaning and intent of the statute, the running of steamships within the waters of the Commonwealth on the Lord's day, — it is

Ordered, That authority be hereby given to the Merchants and Miners Transportation Company to run its steamships within the waters of the Commonwealth on the Lord's day during the year ending June 30, 1914; subject, however, to the following conditions:

1. Within the jurisdiction covered by this order, no intoxicating liquors shall be sold or furnished and no disorderly conduct, gaming or other sport be permitted either upon said steamships or upon any premises owned or controlled by the company.

2. The Board reserves the right to revoke the authority hereby given at any time in its discretion without previous notice to said company.

Attest: CHARLES E. MANN,

JUNE 11, 1913.

[R. R. C. 9403]

Clerk.

Petition of the Boston and Maine Railroad for authority to operate Sunday trains.

After consideration, — it is

Ordered, That the Boston and Maine Railroad be hereby authorized to run on the Lord's day during the period ending July 1, 1914, the trains specified in the petition dated September 25, 1913, and accompanying schedules, subject to the following conditions:

1. No train shall be run as an excursion train.

2. The rate of fare on the passenger trains shall in no case be less than those charged on regular week-day trains between the same stations, including connecting steamboat lines.

All previous orders authorizing the running of trains on the Lord's day on the Boston and Maine railroad are hereby revoked, such revocation to take effect when the above named schedules are put in force.

Attest: CHARLES E. MANN,
SEPTEMBER 26, 1913. [P. S. C. 152] Secretary.

By similar orders, schedules of regular Sunday trains, deemed to be necessary for the public accommodation, have been authorized on the Boston and Albany railroad [P. S. C. 250], the Boston, Revere Beach and Lynn railroad [R. R. C. 9355], the Hoosac Tunnel and Wilmington railroad [R. R. C. 9418] and the New York, New Haven and Hartford railroad [R. R. C. 9190, P. S. C. 186].

Petition of the Watch Tower Bible and Tract Society for permission for a special Sunday train from Boston to Springfield and return.

After consideration, — it is

Ordered, That the New York Central and Hudson River Railroad Company, lessee of the Boston and Albany railroad, be hereby authorized to run a special train from Boston to Springfield and return on Sunday, March 16, 1913, for the exclusive use of the Watch Tower Bible and Tract Society, for the purpose of attending the Massachusetts conference of the International Bible Students' Association at Springfield; provided that said train shall not be run as a public excursion train, and that the rates of fare shall not be less than those charged on regular week-day trains.

Attest: CHARLES E. MANN,
MARCH 4, 1913. [R. R. C. 9191] Clerk.

Petition of the Royal Michaelense Autonomic Beneficent Association for permission for a special Sunday train from Boston to Taunton and return.

After consideration, — it is

Ordered, That the New York, New Haven and Hartford Railroad Company be hereby authorized to run a special train from Boston to Taunton and return on Sunday, April 27, 1913, for the exclusive use of Councils No. 1 and No. 11 of the Royal Michaelense Autonomic Beneficent Association, for the purpose of taking part in a religious service and parade in Taunton; provided that said train shall not be run as a public excursion train, and that the rates of fare shall not be less than those charged on regular week-day trains.

Attest: CHARLES E. MANN,
MARCH 20, 1913. [R. R. C. 9190] Clerk.

Petition of Fifth Regiment of Infantry, Second Brigade, Massachusetts Volunteer Militia, for permission for a special Sunday train from Boston to Fall River.

After consideration, — it is

Ordered, That the New York, New Haven and Hartford Railroad Company be hereby authorized to run a special train from Boston to Fall River on Sunday, March 2, 1913, for the exclusive use of the petitioner, for the purpose of participating in the inaugural ceremonies at Washington on March 4; provided that said train shall not be run as a public excursion train, and that the rates of fare shall not be less than those charged on regular week-day trains.

Attest: CHARLES E. MANN,
FEBRUARY 26, 1913. [R. R. C. 9190] Clerk.

A number of other special Sunday trains have been authorized in the course of the year, for reasons which were deemed to be good and exceptional.

MISCELLANEOUS.

SPECIAL REPORT TO GENERAL COURT.

Report of the board of railroad commissioners on an order of the house of representatives relative to investigation and report with respect to better protection from fire of Mystic wharf and the property and buildings thereon in the Charlestown district of the city of Boston.

To the Honorable the House of Representatives:

On May 21, 1913, the house of representatives adopted the following order, which was transmitted to the Board on May 22, 1913:

Ordered, That the board of railroad commissioners investigate, and report to the house of representatives not later than May twenty-sixth in the current year, what steps, if any, should be taken for the better protection from fire of Mystic wharf and the property and buildings thereon in the Charlestown district of the city of Boston, and the advisability of constructing a roadway for the passage of fire apparatus from Terminal street in said district over the property of the Boston and Maine Railroad to Mystic wharf, and of connecting the water mains now on Mystic wharf with the mains on Terminal street.

After public hearing and further consideration the Board submits its report.

Five successive fire commissioners of the city of Boston have called to the attention of the officials of the Boston and Maine Railroad the desirability of making provision for more adequate fire protection of the property of the company at Mystic wharf in the Charlestown district of the city of Boston. Suggestions have been made from time to time for the installation of additional water pipes and hydrants by the company, and we are informed that provision is now being made by the company to meet the requirements of the fire commissioner of the city of Boston in this respect. The suggestion has also been made that a roadway be built from Terminal street to connect with the roadway leading from Chelsea

street, so that fire apparatus can reach the hydrants from the Terminal street entrance as well as the Chelsea street entrance. This additional service would be especially valuable in case of trouble with the south drawbridge, as the land companies of the fire department would otherwise be shut off from convenient access to the railroad property.

It seems to the Board that if this roadway can be opened without undue interference with the movement of trains, it is desirable that this should be done, in order to lessen the hazard of fire to the railroad property and other property in the vicinity.

As this matter is primarily one of fire protection, the Board suggested that the matter be further studied by the fire commissioner of the city of Boston in conference with the officials of the company, with a view to working out some feasible plan for more convenient access to the railroad property by the apparatus of the fire department of the city of Boston. If it should be found impossible for the parties to reach a satisfactory solution of this problem through agreement, the Board will take the matter up further and make such recommendation as may seem desirable and practicable for the better fire protection of this property.

FREDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

MAY 29, 1913.

[R. R. C. 9374]

Commissioners.

CHARTER CERTIFICATE.

Petition of directors named in the agreement of association for the formation of the Boston and Eastern Electric Railroad Company for certificate of compliance with laws preliminary to establishment.

By order of the board of railroad commissioners, I, the undersigned, Clerk of said Board, hereby certify that the requirements of law preliminary to the establishment of an electric railroad company, as set forth in chapter 516 of the Acts of 1906 and acts in addition thereto, have been complied with by the subscribers to the annexed articles of association for the formation of the Boston and Eastern Electric Railroad Company.

CHARLES E. MANN,

FEBRUARY 1, 1913.

[R. R. C. 9218]

Clerk.

CHANGE OF NAME OF A STREET RAILWAY COMPANY.

Petition of the Athol and Orange Street Railway Company for authority to change its name to Northern Massachusetts Street Railway Company.

After notice and hearing and full consideration, it appearing that the proposed change of name was authorized by a vote of two-thirds of the stockholders of the Athol and Orange Street Railway Company, at a meeting duly called and held on March 10, 1913, — it is

Ordered, That authority be hereby given to the Athol and Orange Street Railway Company to change its name to Northern Massachusetts Street Railway Company, and that said company be required to give public notice of the change so authorized by publication once in the Athol Transcript, the Orange Enterprise and Journal, the Winchendon Courier and the Gardner News, newspapers printed in Athol, Orange, Winchendon and Gardner, respectively.

Attest: CHARLES E. MANN,
APRIL 15, 1913. [R. R. C. 9271] Clerk.

STREET RAILWAYS EARNING FIVE PER CENT DIVIDENDS.*Communication.*

To the Honorable, The Bank Commissioner of the Commonwealth, State House, Boston, Massachusetts.

DEAR SIR: — Pursuant to the provisions of Acts of 1908, chapter 590, part V, section 68, *Fifth*, we transmit the following list of street railway companies incorporated in this commonwealth which appear from the returns made by them to have annually earned and properly paid, without impairment of assets or capital stock, an amount in dividends equal to at least five per cent upon their outstanding capital stock in each of the five preceding years, with the exception of the nine months between September 30, 1909, and June 30, 1910, which period is deemed to be one of the said years, but to which the requirements that dividends equal to at least five per cent upon all their outstanding capital stock shall have been earned and paid does not apply, as provided in section 2 of chapter 502 of the Acts of the year 1909:

Bay State
Boston and Revere Electric
East Middlesex
Fitchburg and Leominster
Holyoke
Nahant and Lynn
Springfield
Union
West End
Worcester Consolidated.

For the Commission,

FREDERICK J. MACLEOD,
DECEMBER 15, 1913. [P. S. C. 279] *Chairman.*

EXPLOSIVES — MARKING.

Application of the Boston and Maine Railroad for approval of marking of torpedo.

The Boston and Maine Railroad having filed with the Board a sample of torpedo, for use on its lines during a trial period ending July 1, 1913, marked with the word "Danger" in a plain, conspicuous and permanent manner, the Board hereby gives its approval under the provisions of chapter 495 of the Acts of 1908.

Attest: CHARLES E. MANN,
JANUARY 15, 1913. [R. R. C. 7045] *Clerk.*

OPERATION OF CARS — STREET RAILWAY.

Petition of the board of aldermen of the city of Cambridge relative to conditions on the Boston Elevated railway at Lechmere square in said city.

After investigation and careful consideration, the Board recommends that the Boston Elevated Railway Company install "Stop" signs on its lines in the city of Cambridge, as follows:

1. Requiring all outward cars from the Cambridge viaduct to stop before entering on the tracks on Bridge street.

2. Requiring all outward cars from the Cambridge viaduct to stop before crossing the side-walk on Cambridge street.

The Board also recommends that a "Slow" sign be installed limiting the speed of all inward cars on Cambridge street in passing the switch leading to the Cambridge viaduct to four miles per hour.

By the Board,

CHARLES E. MANN,

FEBRUARY 19, 1913.

[R. R. C. 9241]

Clerk.

SIGNALS.

Recommendation of the board of railroad commissioners as to the discontinuance of use of "ball signals", so-called, upon the railroads in this commonwealth.

After consideration, the Board recommends that, on or before July 1, 1914, the management of each railroad system in the commonwealth replace all so-called "ball signals" by such type of signal as may be approved by the Board.

By the Board,

CHARLES E. MANN,

JUNE 18, 1913.

[R. R. C. 9405]

Clerk.

Petition of the Boston and Maine Railroad for approval of interlocking signal system at South Lawrence.

After consideration, — it is

Ordered, That the approval of the Commission be hereby given to the interlocking signal system to be installed at South Lawrence in the city of Lawrence, as indicated in red on plan R-160 entitled "Boston and Maine Railroad, Portland Div., Western Route, Proposed Switches and Signals. So. Lawrence, Mass. Scale: 1 in. = 40 ft." and to be operated either by electricity or compressed air in accordance with rules and regulations shown in the book of rules and regulations of the operating department of the Boston and Maine Railroad, effective June 21, 1909, and numbered 5635; said plan and book of rules and regulations being on file in this office.

Attest:

CHARLES E. MANN,

SEPTEMBER 12, 1913.

[P. S. C. 95]

Secretary.

Petition of the Boston and Maine Railroad for revocation or suspension of order and recommendation relative to the replacing of ball signals.

Following an investigation of a collision which occurred on the Boston and Maine railroad at the South Lawrence station on June 3, 1913, the board of railroad commissioners ordered the installation of an interlocking signal system in place of ball signals at this point, and recommended that the management of each railroad system in the commonwealth replace, on or before July 1, 1914, all ball signals by such type of signal as may be approved by the Commission.

On petition of the Boston and Maine Railroad, in compliance with the order above referred to, the Commission on September 12, 1913, approved an interlocking signal plant, to be installed at South Lawrence.

The Boston and Maine Railroad now petitions for a revocation or suspension of this order and also of the recommendation in its application to said railroad. After a public hearing and further consideration, the Commission is of the opinion that in the interest of public safety it would not be justified in revoking or suspending the order and recommendation of the board of railroad commissioners.

Petition dismissed.

For the Commission,

ANDREW A. HIGHLANDS,

NOVEMBER 19, 1913.

[P. S. C. 174]

Secretary.

STREET CAR FENDERS.

Petition of the Bay State Street Railway Company for approval of type of fender.

After consideration, — it is

Ordered, That the approval of the Board be hereby given, under the provisions of section 90 of part III of chapter 463 of the Acts of 1906, to the use on cars of the Bay State Street Railway Company of a fender shown by three photographs submitted with the petition, dated January 4, 1913, when attached to a car in accordance with section 2 of the circular letter of the Board issued under date of September 15, 1910, as follows:

In the opinion of the Board the rigid part of all fenders should be, as near as practicable, twelve inches above the rail; and the height of wheelguards should be, as near as practicable, four inches above the rail.

The approval hereby given may be modified or revoked at any time in the discretion of the Board.

Attest: CHARLES E. MANN,
JANUARY 14, 1913. [R. R. C. 8035] Clerk.

SANDING DEVICES AND HAND BRAKES.

Recommendations of the Board relative to sanding devices and hand brakes on street railway cars.

After consideration, the Board makes the following recommendations to street railway companies:

1. That all cars operated in this commonwealth be equipped with such devices for distributing sand on the rails as may be approved by the Board, and that each device be kept supplied with sand and maintained in good working condition at all times.
2. That all cars operated in this commonwealth be equipped with hand brakes to be maintained in good working condition at all times, and that upon leaving the car houses on the first trip each day the hand brakes be tested a sufficient number of times to insure their efficiency in properly controlling and stopping the car.

By the Board,

CHARLES E. MANN,
JUNE 10, 1913. [R. R. C. 9404] Clerk.

Petition of the Berkshire Street Railway Company for approval of use of certain sanding devices.

After consideration, — it is

Ordered, That the approval of the Commission be hereby given to the use on cars of the Berkshire Street Railway Company of sanding devices known as the Kilbourn track-sanding device, the Sprague rotary sand-box, the Murphy track-sander and the Sterling

sand-box, shown on diagram and blue-prints on file with the petition.

The approval hereby given may be modified or revoked at any time in the discretion of the Commission.

Attest: CHARLES E. MANN,
SEPTEMBER 29, 1913. [P. S. C. 71] Secretary.

By similar orders, sanding devices for use on cars of other street railway companies have been approved as follows:

Boston Elevated, November 3, 1913 — Brill Dumpit sand-box and the Kilbourn track-sanding device. [P. S. C. 203]

Boston and Worcester, October 8, 1913 — Kilbourn track-sanding device, Brill "Dumpit" sand-box, Sprague's rotary sand-box, Sault vacuum sander and Murphy track sander. [P. S. C. 107]

Milford and Uxbridge, September 15, 1913 — Bacon electric rail sander and the DeWitt common sense sand-box. [P. S. C. 2]

Taunton and Pawtucket, September 29, 1913 — Kilbourn track-sanding device and the Loring sand-box. [P. S. C. 58]

Union, November 14, 1913 — Air sander trap, Ham sander, Kilbourn sander, Sterling sand-box, Wood sand-box, Brill Dumpit sand-box, Sprague rotary sander and the St. Louis sand-box. [P. S. C. 216]

SPEED OF CARS.

Petition of the selectmen of Danvers for approval of regulations for speed of street railway cars in that town.

After notice and hearing and full consideration, — it is

Ordered, That the regulations relative to speed of cars upon street railways in the town of Danvers, adopted by the selectmen of said town, as revised and approved, be as follows:

The speed of cars upon street railways in the town of Danvers shall not exceed fifteen (15) miles an hour within the following limits: North street to the Peabody line on the Peabody and Putnamville branch; Garden street to Danvers square on the Highlands branch; Newbury street to Endicott street on the Lawrence branch.

This rate of speed is subject to the following limiting rules, which are made an essential part of these regulations:

1. Unless authority is specially given, no single truck car shall be operated at a rate of speed exceeding fifteen (15) miles an hour.

2. Before taking any heavy descending grade, the speed of every car must be so reduced as to test the working of the brake.

3. Wherever the railway occupies a portion of, or is close to, the travelled road, the speed of every car must be from time to time so reduced as to permit the safe use of the road by others.

4. Every car shall come to a full stop before crossing another street railway at grade.

5. In approaching any public or private way crossed by the railway, the speed of every car must be so reduced that the car may be stopped in season to avoid collision with any person or vehicle rightfully using such way.

6. In rounding curves and in all cases where the view of the motorman is obstructed, the speed of every car must be reduced to meet this condition of limited vision of railway and highway.

7. A car must always be under such control as to enable the motorman to stop it in season to avoid collision or injury in every emergency which it is reasonable to expect may arise.

8. No cars shall be allowed to stand across any street, particularly at Danvers square.

Attest: CHARLES E. MANN,

APRIL 3, 1913. [R. R. C. 9260]

Clerk.

CAR SPRINKLING.

Petition of the Fitchburg and Leominster Street Railway Company for approval of operation of sprinkler cars in Fitchburg.

After consideration, it appearing that a contract has been executed by the American Car Sprinkler Company and the Fitchburg and Leominster Street Railway Company, under date of April 25, 1913, providing for the operation of sprinkler cars in the city of Fitchburg, — it is

Ordered, That the approval of the Board, under section 37 of part III of chapter 463 of the Acts of 1906, be hereby given to said contract, upon the understanding that the manner in which the said sprinkler cars are operated shall be subject to supervision and further regulation by the Board from time to time as the public interests may require.

Attest: CHARLES E. MANN,

MAY 3, 1913. [R. R. C. 9299]

Clerk.

Additional car sprinkler orders issued during the year are as follows:

Bay State Street Railway Company.

Brockton, June 30, 1913 — Contract with American Car Sprinkler Company, dated April 21, 1913, as amended by an agreement dated May 21, 1913, and further amended by an agreement dated June 30, 1913. [R. R. C. 9349]

Revere, June 30, 1913 — Contract with American Car Sprinkler Company, dated June 30, 1913. [R. R. C. 9441]

Salem, July 31, 1913 — Contract with Hamlin Street Sprinkler Company. [R. R. C. 9356]

WEEKLY PAYMENT OF WAGES.

Petition of S. W. Manning, general New England agent, the Atchison, Topeka and Santa Fe Railway System, for exemption from the requirement of law relative to the weekly payment of certain of its employees.

After notice and hearing and further consideration, under the provisions of section 112 of chapter 514 of the Acts of the year 1909, it appearing that the employees of said petitioner prefer less frequent payments and that their interests and the interests of the public will not suffer thereby, — it is

Ordered, That the Atchison, Topeka and Santa Fe Railway System be hereby exempted from the provisions of section 112 of chapter 514 of the Acts of the year 1909, as amended by chapter 350 of the Acts of the year 1910, and further amended by chapter 208 of the Acts of the year 1911, providing for weekly payments of wages of employees, so far as its office in the city of Boston is concerned.

Attest:
JULY 31, 1913. [P. S. C. 34]

CHARLES E. MANN,
Secretary.

Petition of Willard Massey, New England freight and passenger agent, Union Pacific Railroad Company, for exemption from the requirement of law relative to the weekly payment of certain of its employees.

After notice and hearing and further consideration, under the provisions of section 112 of chapter 514 of the Acts of the year 1909, that the employees of said petitioner prefer less frequent pay-

ments and that their interests and the interests of the public will not suffer thereby, — it is

Ordered, That the Union Pacific Railroad Company be hereby exempted from the provisions of section 112 of chapter 514 of the Acts of the year 1909, as amended by chapter 350 of the Acts of the year 1910, and further amended by chapter 208 of the Acts of the year 1911, providing for weekly payments of employees, so far as its office in the city of Boston is concerned.

Attest: CHARLES E. MANN,
SEPTEMBER 16, 1913. [P. S. C. 93] *Secretary.*

CIRCULARS.

I am directed to inform you that the Public Service Commission, appointed under the provisions of chapter 784 of the Acts of the General Court of Massachusetts for the year 1913, and consisting of Frederick J. Macleod, George W. Anderson, George P. Lawrence, Clinton White and George W. Bishop, has organized by the choice of Frederick J. Macleod as Chairman.

For the Commission,

 CHARLES E. MANN,
JULY 7, 1913. [P. S. C. 158] *Secretary.*

I am directed to inform you that Everett E. Stone has been appointed a member of the Public Service Commission of Massachusetts, to fill the unexpired term of George P. Lawrence, resigned, and that he has qualified and assumed the duties of the position.

For the Commission,

 CHARLES E. MANN,
SEPTEMBER 24, 1913. [P. S. C. 158] *Secretary.*

I am directed to inform you that Justin W. Lester has been appointed chief accountant of the Public Service Commission of Massachusetts, and has assumed the duties of that position.

For the Commission,

CHARLES E. MANN,

SEPTEMBER 26, 1913.

[P. S. C. 158]

Secretary.

I am directed to inform you that Andrew A. Highlands has been appointed Secretary, Charles E. Mann, Executive Secretary, Allan Brooks, Assistant Secretary, and C. Peter Clark, Chief of the Rate and Tariff Bureau of the Public Service Commission of Massachusetts, and they have severally assumed the duties of their respective positions.

For the Commission,

ANDREW A. HIGHLANDS,

NOVEMBER 3, 1913.

[P. S. C. 158]

Secretary.

REPORTS OF JOINT BOARDS.

Petition of the Boston, Cape Cod and New York Canal Company to the joint board of railroad commissioners and the harbor and land commissioners, filed May 6, 1912, asking it to determine the kind of bridge or bridges, ferry or ferries across the Cape Cod canal at Sagamore in the town of Bourne, authorized by chapter 448 of the Acts of 1899, or tunnel or tunnels under the same which shall be built by said company at a point designated by the county commissioners of Barnstable county April 30, 1912, and to approve the plans for any such bridge, ferry or tunnel.

After public advertisement and due notice to parties interested, and public hearing in pursuance therewith, it appearing that the county commissioners of Barnstable county, on the thirtieth day of April, 1912, designated the point at which a suitable ferry or ferries or bridge or bridges across the canal of said company, or a suitable tunnel or tunnels under the same, should be provided and maintained by said company, in the village of Sagamore in the town of Bourne, near the present Sagamore railroad station of the Old Colony railroad, said point being shown on tracing plan entitled "Map Showing Location of Proposed Highway Bridge over Cape Cod Canal at Sagamore = Mass. Scale: 1 in. = 40 ft. May 1912.", said point being designated on said map as station one hundred and fourteen plus ninety-five ($114 + 95$), also shown on the map of the location of the Cape Cod canal, H. W. Durham, resident engineer, filed with the county commissioners of Barnstable county; this map and two plans on tracing cloth, one entitled "Substructure Plan, Highway Bridge over Cape Cod Canal at Sagamore, Mass., Cape Cod Construction Co., Wm. Barclay Parsons, Chief Engineer, January 1912", the other entitled "Superstructure Plan, Highway Bridge over Cape Cod Canal at Sagamore, Mass., Cape Cod Construction Co., Wm. Barclay Parsons, Chief Engineer, January

1912", having been filed with said joint board by said canal company, exhibited and explained at a public hearing; the joint board, acting under the provisions of chapter 448 of the Acts of 1899 and chapter 519 of the Acts of 1910, and in partial execution of the authority conferred upon it by said chapter 448, hereby determines that a suitable crossing of said canal at a point designated by the county commissioners of Barnstable county on the thirtieth day of April, 1912, for the passing of highway traffic, shall be by means of a drawbridge, and it is *Ordered*, that the map and two plans referred to herein and filed with this order be approved and that the following inscription be placed upon the map and each of said plans "Approved by the Joint Board of Railroad Commissioners and Harbor and Land Commissioners, January 15, 1913. Frederick N. Wales, Clerk of Joint Board."

Said joint board expressly reserves all rights, powers and authorities conferred upon it by law with respect to all other crossings and points of crossing over the said canal.

FRÉDERICK J. MACLEOD,
GEORGE W. BISHOP,
CLINTON WHITE,

Railroad Commissioners.

WM. S. McNARY,
GEO. E. SMITH,
CHAS. C. PAINE,

Harbor and Land Commissioners.

JANUARY 15, 1913. [R. R. C. 8954]

Report of the board of railroad commissioners and the bank commissioner on an order of the general court relative to the provisions of sections 15 and 16 of house bill No. 2329 of the year 1913.

To the Honorable the Senate and the House of Representatives:

On May 1, 1913, an order was adopted by the house of representatives, which was adopted in concurrence by the senate on May 2, 1913, and transmitted to the commissioners on May 5, 1913. This order requested the board of railroad commissioners and the bank commissioner to furnish to the general court answers to the several questions which are separately enumerated and considered in this report.

Owing to the limitation of time within which we have been asked to make our report and to the pressure of our other official duties, we have found it impossible to answer these inquiries with the detail and completeness which we should desire.

On account of the absence of Mr. George W. Bishop of the board of railroad commissioners upon official business we have not had the benefit of his counsel and co-operation in the preparation of this report.

1. What are the statutory provisions relative to the issue by a railroad corporation of mortgage bonds, bonds, coupon notes and other evidences of indebtedness payable more than one year after their date?

The statutory provisions relative to the issue by a railroad corporation of mortgage bonds, debenture bonds, coupon notes and other evidences of indebtedness payable more than one year after their date, are contained in sections 48, 65 and 66 of part II of chapter 463 of the Acts of the year 1906, in chapter 620 of the Acts of the year 1908, and in sections 4 and 5 of part II of chapter 725 of the Acts of the year 1912.

The law relative to the issue of securities by a railroad corporation makes a broad distinction between promissory notes or other evidences of indebtedness payable in one year or less, and bonds, promissory notes (with or without interest coupons attached) and other forms of indebtedness payable at periods of more than one year after the date thereof. For convenience the first class of securities will be referred to in this report as short-time obligations, and the other class of securities will be referred to as long-time obligations.

In regard to bonds and other long-time obligations, the statutes above cited provide in substance that a railroad corporation may issue mortgage bonds, debenture bonds or other long-time obligations, to provide means for funding its floating debt or for the payment of money borrowed for any lawful purpose. Such obligations may be issued in amounts of not less than one hundred dollars each, payable in periods not exceeding fifty years from the date thereof, and may bear interest not exceeding seven per cent a year. Such bonds and other long-time obligations shall be issued to such amount only as the board of railroad commissioners may determine to be reasonably necessary for the purpose for which such issue has been authorized; provided, however, that the approval of the Board shall not be required to the issue of any such bonds or other obligations authorized by the law of this Commonwealth, the proceeds of which

are to be expended in another state or country, or which are to pay for borrowed money expended in another state or country.

It is further provided that debenture bonds and other unsecured, long-time obligations may be issued by a railroad corporation to an aggregate amount not exceeding the amount of its paid-in capital stock, plus the amount of any premiums paid to the corporation upon stock issued above par since the enactment of chapter 462 of the Acts of 1894. If, however, a railroad corporation secures such long-time obligations by a mortgage it may issue such obligations to twice the amount stated above, provided that the mortgage covers all the property and franchise, present and future, of such railroad corporation, and secures all outstanding debenture bonds and other long-time obligations.

2. What are the present statutory provisions relative to the issue of notes and other evidences of indebtedness by a railroad corporation payable in one year or less from their date?

There are no statutory provisions limiting the amount of such short-time obligations or the rate of interest thereon, or otherwise regulating in any way the issue of such obligations by a railroad corporation.

3. What is the limitation under the present laws on the amount of unsecured debenture bonds, coupon notes and other evidences of indebtedness of a railroad corporation payable more than one year from their date?

The limitation under the present laws upon the amount of such unsecured obligations has already been stated in the answer to Question 1.

4. Is there any limitation under the present laws upon the amount of notes and other evidences of indebtedness payable in one year or less from their date which a railroad corporation may issue?

No. (See answer to Question 2.)

5. When were the provisions of sections 48 and 66 of part II of chapter 463 of the Acts of the year 1906 first adopted; what amendments and modifications have been made by general laws in those provisions since their original enactment to the present time; have any

exceptions been made by special statutes to the limitations contained in such provisions upon the amount of bonds, coupon notes and other evidences of indebtedness payable more than one year after their date which a railroad corporation may issue; and what are some of such special statutes, if any?

The general railroad laws of this commonwealth are codified in chapter 463 of the Acts of the year 1906. Sections 48 and 66 of part II of said act regulate the issue of bonds and other long-time obligations by railroad corporations. The earliest statute dealing with the subject-matter of these sections is chapter 286 of the Acts of the year 1854, which applied only to bonds. The first three sections of that act provided as follows:

Acts of 1854, Chapter 286.

SECTION 1. Any railroad corporation established by the laws of this commonwealth may issue bonds for the purpose of funding its floating debt, or for money which it may borrow for any purpose sanctioned by law: *provided, however*, that such corporation shall, by a majority of votes, at a meeting of its stockholders called for that purpose, be authorized to issue the same; and provided that the bonds so issued shall in no case exceed the amount of capital stock actually paid in by the stockholders of said company.

SECTION 2. Such bonds may be issued in sums of not less than one hundred dollars each, payable at periods not exceeding twenty years from the date thereof, and may bear a rate of interest not exceeding six per centum per annum, payable annually or semi-annually.

SECTION 3. No railroad corporation, having issued any bonds under the provisions of this act, shall subsequently make or execute any mortgage upon its road, equipments and franchise, or any of its property, real or personal, without including in and securing by said mortgage all such bonds previously issued and all other pre-existing debts and liabilities of said corporation.

The provisions of this act were re-enacted in the codification of the general statutes of 1860 (General Statutes, chapter 63, sections 120 to 123).

By the terms of chapter 49 of the Resolves of 1873, the board of railroad commissioners was authorized to present to the next legislature a bill for the codification of the general laws relating to railroads. In compliance with this resolve the board of railroad commissioners presented to the legislature of 1874 a codification of the railroad laws of the commonwealth. Upon the basis of that report

by the railroad commission chapter 372 of the Acts of 1874 was enacted. The provisions in regard to the issuing of bonds are contained in sections 49 to 52 of that act. The only change of any importance made in this codification was in increasing the permissive rate of interest upon railroad bonds from six per cent to seven per cent.

Up to this time there was no general authority for a railroad corporation to make any mortgage whatever of its property. In every instance, therefore, if a railroad corporation wished to make a mortgage it was obliged to secure special legislation to that effect. In 1875, however (chapter 58 of the Acts of the year 1875), section 49 of chapter 372 of the Acts of the year 1874 was amended so as to permit the making of mortgages without special application to the legislature.

It is to be observed also that up to this time there was no limitation upon the issue of any kind of debt obligations except bonds by a railroad corporation. It could issue coupon notes, that is, promissory notes not under seal, with interest coupons attached, to any amount and for any length of time and at any rate of interest, and, of course, could issue ordinary promissory notes without limit as to the amount, rate of interest or time. This was true not only because the statutes did not prohibit the issue of such coupon or other notes, but because at common law a railroad corporation had unlimited power to issue even bonds (see *Commonwealth v. Smith*, 10 Allen, 448). By chapter 170 of the Acts of 1876, however, section 49 of chapter 372 of the Acts of the year 1874 was amended so as to apply also to "coupon notes or other evidences of indebtedness payable at periods of more than twelve months from the date thereof."

The law so amended was re-enacted without change in the codification of the general statutes in 1882 (Public Statutes, chapter 112, sections 62 to 65). In 1887 the length of time for which bonds could be made to run was changed from twenty to fifty years (Acts of 1887, chapter 191).

In 1894 railroad corporations were prohibited from thereafter issuing any capital stock or bonds except with the approval of the board of railroad commissioners. This statute did not, however, apply to the issue of bonds otherwise authorized by our laws (that is, by Public Statutes, chapter 112, section 62), the proceeds of which were to be expended in another state or country. While this statute required the approval of the railroad commissioners to an issue of bonds, it did not require such approval to an issue of coupon

notes or of other long-time obligations, and still less, of course, did it apply to notes payable within one year from their date (Acts of 1894, chapter 462). By chapter 337 of the Acts of 1897 the law was amended so as to require the approval of the railroad commissioners to the issue of coupon notes and other long-time obligations.

In the revision and codification of the general laws in 1902 the provisions then existing relative to the issue of debt obligations by railroad corporations were re-enacted as Revised Laws, chapter 111, section 63; chapter 109, sections 24 and 25.

The general laws relative to railroad corporations were again revised and codified in chapter 463 of the Acts of 1906. Section 48 of part II of that act re-enacted and continued in effect with only verbal changes Revised Laws, chapter 111, section 63. Section 65 of said part II re-enacted and continued in effect with only verbal changes Revised Laws, chapter 109, section 24. Section 66 of said part II re-enacted and continued in effect with only verbal changes Revised Laws, chapter 109, section 25.

By chapter 620 of the Acts of the year 1908, the limitation on the amount of bonds, coupon notes or other evidences of indebtedness payable at periods of more than twelve months after the date thereof was extended so that such obligations could be issued not only to the amount at par of a railroad corporation's capital stock actually paid in, but also to the amount of all cash premiums paid in to the corporation since the enactment of chapter 462 of the Acts of the year 1894, which required stock to be issued at such prices above par as might be fixed by the railroad commissioners.

In 1912, under the provisions of sections 4 and 5 of part II of chapter 725 of the Acts of that year, sections 48 and 66 of part II of chapter 463 of the Acts of 1906 were amended so as to provide in substance that a railroad corporation might issue twice the amount of bonds and other long-time obligations theretofore permitted by law, provided that it secured all its bonds and pre-existing debts by a mortgage upon all its property and franchise, present and future.

It is to be observed that all the regulations adopted during a period of nearly sixty years have been confined solely to the issue of long-time obligations. There is not now, and has never been, any limitation upon the amount, the rate of interest or the time of ordinary promissory notes payable by their terms in one year or less from their date.

The limitation in the general law upon the amount of bonds and other long-time obligations which may be issued by a railroad cor-

poration has been changed in several instances by special statute. The railroad commissioners, in their report recommending the revision of the railroad laws in 1874 said:

The rule . . . that the amount of bonds issued shall not exceed the capital paid in is stated in express terms in General Statutes, chapter 63, section 120, which has at no time been formally amended or repealed; but it is well known that by authority of special acts of the legislature or otherwise many of the railroad corporations have a bonded indebtedness in excess, and sometimes largely in excess, of their capital.

The following special statutes authorizing railroad companies to issue funded debt in excess of stock may be cited: Acts of 1865, chapter 51, and Acts of 1873, chapter 198, relative to the Fall River, Warren and Providence Railroad; Acts of 1869, chapter 299, relative to the Boston, Clinton and Fitchburg Railroad; Acts of 1869, chapter 456, relative to the Boston, Hartford and Erie Railroad; Acts of 1871, chapter 33, relative to the Framingham and Lowell Railroad; and Acts of 1874, chapter 80, relative to the Eastern Railroad Company.

As a result of such special legislation the latter company, on September 30, 1875, had outstanding various issues of bonds, aggregating \$11,367,948 as against a capital stock outstanding of \$4,997,600. Additional authority for the issue of bonds was granted to the same company by chapter 185 of the Acts of 1887. On September 30 of the previous year (1886) the annual returns of the Eastern Railroad Company showed capital stock of \$4,997,600 and funded debt \$13,224,203.17.

By the provisions of section 2 of chapter 426 of the Acts of 1900, the Boston and Maine Railroad was authorized to issue bonds to the amount of \$5,000,000 "in addition to any bonds heretofore or hereafter authorized by charter or general law."

By chapter 676 of the Acts of 1912, the Boston and Providence Railroad was authorized to issue mortgage bonds to the amount of \$8,000,000 outside the limitations of sections 48 and 66 of part II of chapter 463 of the Acts of 1906. As the bonds of that company already outstanding amounted to \$2,170,000, the total issue authorized was \$10,170,000, the capital stock of the company being \$4,000,000.

6. Are the notes and other evidences of indebtedness of a railroad corporation, payable in one year or less from their date, equally eligi-

ble as savings bank investments with mortgage bonds, debenture bonds, coupon notes and other evidences of indebtedness payable more than one year after their date?

Yes. (See sub-division *a*, clause *Third*, section 68, chapter 590 of the Acts of the year 1908.)

7. Under sections 4 and 5 of part II of chapter 725 of the Acts of the year 1912 is there any limitation upon the amount of notes and other evidences of indebtedness, payable in one year or less from their date, which may be issued by a railroad corporation which has executed a mortgage in accordance with the provisions of said sections?

There is no limitation.

8. In what, if any, respects, under present laws, do the unsecured bonds, coupon notes and other evidences of indebtedness, payable more than a year after their date, have preference or priority as to payment of the principal or interest, or otherwise, over notes and other evidences of indebtedness payable in one year or less from their date?

Under present laws the unsecured bonds and other long-time obligations of a railroad corporation have no preference or priority as to the payment of the principal or interest, or otherwise, over short-time notes or other obligations. Indeed, from their earlier maturity the short-time notes have an advantage over the long-time bonds, as their holders are in a position to enforce their rights to payment of principal within a short time after lending money to the corporation, while the bondholders can claim only their interest from time to time, in the absence of special provisions in the bonds themselves or a declaration that the principal may become due earlier upon certain conditions.

9. Would the bonds, coupon notes and other evidences of indebtedness issued by a railroad corporation, and eligible as savings bank investments, be more or less protected under the provisions of sections 15 and 16 of the pending bill, house, No. 2329, than under the existing statutory provisions relative to the issue of such securities by a railroad corporation, and why?

Sections 15 and 16 of house bill, No. 2329, propose two substantive changes, only, in the law as it was left by the legislature of 1912. First, the requirement that long-time obligations must be

secured by mortgage if issued in excess of the amount of paid-in capital stock and premiums thereon, is removed. And second, the amount of short-time obligations must be included with the amount of long-time obligations in determining the total amount of indebtedness which a railroad corporation may issue and have outstanding.

The first change, permitting the issue of unsecured bonds in lieu of mortgage bonds, in so far as it affects the protection afforded to bondholders, must be regarded as decreasing rather than increasing the amount of such protection. The question as to whether the impairment of the protection afforded under the present law is real and substantial or merely nominal is a question that is less easy to answer. Under the requirements of the present law if a company wishes to issue long-time obligations it must make a mortgage of all its property, present and future. As all future property must be subjected to the mortgage, any railroad corporation making such mortgage upon its property would undoubtedly provide for the securing of all future debts by executing an absolutely open mortgage, that is, one which would permit the issue at any time, and from time to time, of bonds at least up to the maximum of two dollars of bonds for one of stock. The result of this would be that all the property of the corporation, at any given time, would be pledged as security for all of its long-time obligations to the extent of twice its paid-up capital and premiums. If, however, its total possible indebtedness is limited to that maximum amount without a mortgage a similar result is obtained, as in either case all of the company's property would be liable for its debts.

It is to be remembered also that section 15 provides that if at any future time a mortgage is executed by a railroad company it must secure all bonds, notes and other evidences of indebtedness previously issued and then outstanding on equal terms with any other indebtedness secured by such mortgage.

Whether, under these conditions, the proposed amendment of the present law would seriously affect the interests of the present holders of unsecured bonds is a question on which expert opinion seems to be sharply divided.

In the opinion of the bank commissioner this amendment which gives the railroad corporations the power to issue unsecured bonds, or long-time obligations, in excess of the present limit, would lessen the value of the outstanding bonds, and inasmuch as our savings banks have invested more than sixty millions of dollars, or about one-fifteenth of their assets in these long-time obligations, the proposed change should not be made unless it is provided that the

present outstanding long-time obligations under the old law should be taken up or secured, or the new obligations made subject to the old ones. The security and value of the outstanding bond obligations ought not to be impaired by new legislation: the issuance of such bonds under a statutory limitation should be considered as practically a contract authorized by the commonwealth that such limit should not be exceeded.

In the absence of a unanimity of opinion among the members of this joint board, we are obliged to leave this matter as an open question for the determination of the legislature.

As we have already pointed out sections 15 and 16 provide for another change in the present law by imposing a limitation which has not existed heretofore, upon the amount of short-time obligations which may be issued by a railroad corporation and be eligible as savings bank investments. This change is clearly in the public interest.

The benefit to the public from this provision lies not merely in the fact that a limit is imposed upon the total amount of corporation obligations which may be issued by a railroad company, but also, and to a greater degree, in the fact that it tends to relieve the companies from the hazard to which they may be exposed in case of panic or financial stringency. If, under such circumstances, a railroad corporation has a large number of short-time notes outstanding, renewals of the notes will be difficult and may prove impossible. Any provision of law which would tend to promote the funding of these short-time obligations will operate as a protection to the company and to the holders of its securities. Whatever legal safeguards the holders of these securities may have by way of mortgage upon the railroad properties or otherwise, everyone agrees that their real protection lies in the maintenance of the company as a prosperous going concern rather than in the salvage of the railroad properties in case of a receivership.

10. Are the limitations contained in sections 48 and 66 of part II of chapter 463 of the Acts of the year 1906, relative to the amount which may be issued by a railroad corporation of unsecured bonds, coupon notes and other evidences of indebtedness, payable more than one year from their date, imposed by the statutes of any other New England state, or is such principle generally adopted in other states?

The only limitations imposed by the statutes of any other New England state, analogous to the provisions of sections 48 and 66 of part II of chapter 463 of the Acts of 1906, are contained in the

general railroad laws of the state of Connecticut. Chapter 149 of the public acts of Connecticut of the year 1905 provides that no railroad company "by virtue of the general authority conferred by this act, shall issue any bonds of a less denomination than one hundred dollars, or have bonds issued under such authority, and without other authority from the general assembly, outstanding at any one time to a greater amount than one-half the sum which its president, treasurer and an engineer, approved by the railroad commissioners, shall certify under oath has been actually expended upon its railroad."

Section 4 of the special acts of Connecticut, approved May 25, 1905, provides, however, in effect, that the Consolidated Railroad Company, with which the New Haven Railroad was consolidated May 31, 1907, may issue bonds or other evidences of indebtedness for such amount as said corporation shall find necessary for lawful purposes.

The New York, New Haven and Hartford Railroad Company is the only important operating railroad in Connecticut, and the only practical limitation upon the ratio of bonds to stock which may be issued by that corporation is the discretion of its own executive officers.

There appears to be no general law relative to the issue of bonds by railroad corporations in the state of Rhode Island. The last charter granted was that of the Southern New England Railroad, by an act of the January session of the Legislature of 1910. Under the provisions of this special act that railroad company was authorized to issue capital stock to the amount of \$3,000,000 and debenture bonds or mortgage bonds, as they might elect, to the amount of \$6,000,000.

In the remaining New England states, Maine, New Hampshire and Vermont, the only limitation in the general law upon the ratio of bonds to stock is the discretion of the supervising boards in the several states.

Owing to the limitation of time within which we have been asked to make our report, it has been impossible for us to make any exhaustive examination of the laws of other states relative to the issue of bonds and other obligations by railroad corporations. We have, however, examined the statutes of those states where laws have recently been enacted for the creation of public service or public utilities commissions.

Reference has already been made to the State of Connecticut, which established a public utilities commission under the provisions

of chapter 128 of the Acts of 1911; to Rhode Island, which established a public service commission under the provisions of chapter 795 of the Acts of 1912; to Vermont, which established a public service commission under the provisions of No. 116 of the laws of 1908; to New Hampshire, which established a public service commission under the provisions of chapter 164 of the laws of 1911; and to Maine, which established a public utilities commission by chapter 129 of the laws of 1913 enacted on March 27 of this year. Such commissions have, therefore, already been established in all the New England states except Massachusetts.

In New York a public service commission was established under the provisions of chapter 429 of the laws of 1907; in Maryland a public service commission was established by chapter 180 of the laws of 1910; in New Jersey a board of public utilities commissioners was established under the provisions of chapter 195 of the laws of 1911; in Ohio a public service commission was established under the provisions of No. 325 of the laws of 1911; in Kansas a public utilities commission was established under the provisions of chapter 238 of the laws of 1911; in Washington a public service commission was established under the provisions of chapter 117 of the laws of 1911. On March 4 of the present year a law was enacted creating a public utilities commission for the District of Columbia; and on the same date a law was passed in Indiana creating a public service commission in that state (chapter 76 of the Acts of 1913).

In Wisconsin and California, while the supervising boards are designated as railroad commissions, they are given jurisdiction and broad powers of regulation over all public service corporations. (See chapter 362 of the laws of 1905 and chapter 499 of the laws of 1907 of the state of Wisconsin; and chapter 14 of the statutes of 1911 of the state of California.)

The laws of the other New England states in relation to the issue of bonds by railroad corporations have been already stated.

Under the general laws of New Jersey a railroad corporation is authorized to borrow money in order to finance improvements on its properties to an amount not exceeding the aggregate amount of its paid-in capital stock, and to issue mortgage bonds for such purpose. In Washington there appears to be no general law relative to the issue of bonds by railroad corporations. The jurisdiction of the Public Utilities Commission of the District of Columbia does not extend to steam railroads. In Maryland, Kansas, New York, Ohio, Indiana, Wisconsin, and California, the public service commissions or other regulating boards are given the absolute power

of determining, in each instance, the amount of bonds which the corporation may issue for any proposed purpose, without any further statutory limitation. The California law expressly repeals the provisions of prior general laws in so far as they contain inhibitions against the creation by corporations of indebtedness evidenced by bonds, notes or otherwise in excess of their total authorized or subscribed capital stock.

To sum up the results of our examination of the laws of these fifteen states, which may fairly be taken to represent the latest and most progressive railroad legislation in the country, we find that two states only, Connecticut and New Jersey, have any provisions corresponding to the present limitation upon bond issues in this state, and that in one of these states, Connecticut, the provisions of the general law are practically nullified by special acts. The other thirteen states either have no provisions whatever in relation to the issue of bonds by railroad corporations or else impose no statutory limitation, except the discretion of the supervising boards.

It may be added also that the statutory provisions in regard to the regulation of bond issues are contained in the several special acts creating the public service or other similar commissions in New York, Maine, New Hampshire, Vermont, Maryland, Ohio, Kansas, Indiana and California.

11. What difference, if any, exists under our laws as to eligibility for savings bank investments, relative to the limitation upon the amount of unsecured bonds, coupon notes and other evidences of indebtedness, payable more than one year from their date, issued by a railroad corporation incorporated under the laws of Massachusetts which has not placed any mortgage upon its property, and those issued by such a corporation incorporated under the laws of the other New England states?

Our laws relative to savings bank investments authorize Massachusetts savings banks to invest in the bonds or notes issued in accordance with the laws of this Commonwealth of a railroad corporation incorporated therein, the railroad of which is located wholly or in part therein, which has paid in each fiscal year for the five years next preceding such investment a dividend of not less than four per cent upon its outstanding capital stock. The unsecured bonds and coupon notes of Massachusetts railroads eligible for savings bank investments must be issued in accordance with the laws of the Commonwealth, which prohibit a railroad corporation incorporated in this state from issuing such securities in excess of the amount of its paid-up capital stock, including premiums.

The savings bank laws also authorize Massachusetts savings banks to invest in the unsecured bonds of any railroad corporation incorporated in any of the New England states, at least one-half of the railroad of which is located in said states, if the corporation has not made any mortgage, provided that the state of its incorporation contains a requirement similar to that contained in section 15 of house bill 2329, viz.: "Any mortgage executed by a railroad company shall secure all its bonds, notes and other evidences of indebtedness previously issued and then outstanding on equal terms with any other indebtedness secured by such mortgage"; and provided further that, as in the case of eligible unsecured bonds of Massachusetts railroads, they shall have paid a dividend of not less than four per cent per annum in each fiscal year for the five years next preceding such investment. The only additional limitation on the amount of bonds eligible for Massachusetts savings bank investments issued by a railroad corporation under the laws of any of the other New England states than Massachusetts is that the bonds of such company shall not be a legal investment unless in the year preceding the date of the investment the corporation has paid in dividends "an amount equal to one-third of the total amount of interest paid on all its direct and assumed funded indebtedness."

The difference in the limit on the amount of unsecured bonds which are eligible for savings bank investments as between Massachusetts railroads and railroads in other states may be stated in general language as follows: The Massachusetts corporation can issue and have eligible for investment unsecured bonds only to the amount of its paid-up stock and the amount of any premiums that may have been paid in thereon; the railroads of the other New England states, however, can have their unsecured bonds eligible for Massachusetts savings banks so long as the interest on all their funded debt does not exceed three times the dividend paid on their capital stock. If they are able to fund their entire debt by the issue of four per cent bonds, this means, they may issue three times as much in amount of unsecured bonds as they have of paid-up capital stock, and all such bonds would be eligible for savings bank investments in this state.

(Acts of 1908, chapter 590, section 68, clause *Third*, subdivisions *a*, *b* and *d*.)

12. What changes in the present laws would sections 15 and 16 of the pending bill, house No. 2329, if enacted, effect (1) in the amount of secured bonds, coupon notes and other evidences of indebtedness

payable more than one year after their date, (2) in the amount of unsecured bonds, coupon notes and other evidences of indebtedness payable more than one year from their date, (3) in the amount of notes and other evidences of indebtedness payable in one year or less from their date, and (4) in the total amount of bonds, notes and other evidences of indebtedness, both secured and unsecured, and both those payable more than one year and those payable in one year or less from their date, which may be issued by a railroad corporation?

(1) Sections 15 and 16 of the pending bill, if enacted, would effect no change in the present laws relative to the amount of secured bonds and other long-time obligations which may be issued by a railroad corporation.

(2) Under the present laws the amount of unsecured bonds and other long-time obligations which may be issued by a railroad corporation is limited to the amount of its paid-in capital stock and the amount of any premiums that may have been paid thereon. If sections 15 and 16 of the pending bill were enacted, a railroad corporation would have the privilege of issuing unsecured bonds in lieu of mortgage bonds to twice the amount above stated.

(3) Under the present laws there is no limitation upon the amount of short-time notes or other obligations which may be issued by a railroad corporation. If sections 15 and 16 of the pending bill were enacted such short-time obligations could be issued by a railroad corporation to such amount only as, added to the aggregate amount of its outstanding bonds and all other obligations, would not exceed twice the amount of its paid-in capital stock including any premiums that may have been paid thereon.

(4) Under the present law there is no limitation upon the total amount of obligations of all kinds which may be issued by a railroad corporation. If sections 15 and 16 of the pending bill were enacted the total amount of obligations of all kinds which might be issued by any such corporation would be limited to twice the amount of its capital stock including any premiums that may have been paid thereon.

13. What other changes would sections 15 and 16 of the pending bill, house, No. 2329, if enacted, effect in the existing provisions of law relative to the issue by a railroad corporation of bonds, coupon notes and other evidences of indebtedness?

Section 66 of part II of chapter 463 of the Acts of 1906, provides that bonds, coupon notes, and other evidences of indebtedness, pay-

able at more than one year after the date thereof, shall not be issued by a railroad corporation unless authorized by a vote of its stockholders at a meeting called for the purpose. This requirement is not contained in sections 15 and 16 of the pending bill, house No. 2329. Such a provision, however, seems desirable, and the addition of the following language at the end of section 15 would have the effect of retaining the requirement, viz.: "No bonds, coupon notes, or other evidences of indebtedness payable at periods of more than twelve months from the date thereof shall be issued unless authorized by a vote of the stockholders at a meeting called for the purpose, and no such bond, coupon note or other evidence of indebtedness shall be issued unless approved by a person or trust company appointed by the corporation for that purpose, who shall certify that it is properly issued and recorded."

Section 48 of part II provides that bonds, coupon notes, or other evidences of indebtedness payable at more than twelve months from the date thereof, "may be issued in amounts of not less than one hundred dollars each, payable in periods not exceeding fifty years from the date thereof, and may bear interest not exceeding seven per cent a year." These provisions are not contained in sections 15 and 16 of the pending bill, house No. 2329.

Section 65 of said part II provides that the decision of the Board on an application for approval of stocks or bonds, "shall, within seven days after it has been rendered, be filed in the office of said Board," and that a certificate of the decision of said Board "shall, within three days after such decision has been rendered, and before the stock, bonds, coupon notes or other evidences of indebtedness as aforesaid are issued, be filed in the office of the secretary of the commonwealth." These provisions do not appear in said sections 15 and 16 of the pending bill.

These provisions, relating only to minor details, do not seem to us of special significance, but if they seem otherwise to the general court they can be easily added to sections 15 and 16 of the bill.

Section 66 of said part II excepted from the limitation upon the amount of funded indebtedness of a railroad corporation such bonds as might be issued, "for the purpose of paying and refunding at maturity bonds lawfully issued prior to the second day of June in the year 1897." This exception has been omitted from sections 15 and 16 of the pending bill.

The change proposed as to the power of the Board relative to the supervision of the issue of evidences of indebtedness is pointed out below in answer to the fifteenth question.

It has been suggested that the provisions of section 67 of part II of the railroad law may not apply to sections 15 and 16 of the bill. Such a criticism does not seem to us well founded, but to remove any possible doubt we recommend the following amendment:

Insert after the word "repealed" in line 42 of section 16 of the pending bill, house 2329, the following: "and the reference in section 67 of said part II to said sections 65 and 66 of said part II shall be construed as applying to this and the preceding section."

14. What changes, if any, would sections 15 and 16 of the pending bill, house No. 2329, if enacted, make to restrict or extend the aggregate amount eligible for savings bank investments of bonds and notes of a railroad corporation?

As we have already pointed out in our answer to paragraph (4) of question 12, there is no limitation at the present time upon the amount of short-time notes which may be issued by a railroad corporation. As all such notes are eligible for savings bank investments, provided the other statutory requirements are complied with, our savings banks might, in theory at least, under the provisions of the present law, invest in the notes of a Massachusetts railroad corporation to an indefinite amount. The limitation in sections 15 and 16 of the pending bill upon the total amount of short-time notes which may be issued by a railroad corporation would operate as a similar limitation upon the aggregate amount of bonds and notes eligible for savings bank investments.

15. What changes, if any, would sections 15 and 16 of the pending bill, house No. 2329, if enacted, effect in the power and jurisdiction of the proposed public service commission relative to the supervision, regulation and approval of the issue of the stock, bonds, coupon notes and other evidences of indebtedness of a railroad corporation, payable more than one year from their date, as compared with the power and jurisdiction of the board of railroad commissioners under existing statutes relative to the same subject?

Under section 48 of said part II, both before and since its amendment by section 5 of chapter 725 of the Acts of 1912, a railroad corporation is authorized to issue bonds, coupon notes, or other evidences of indebtedness, payable at periods of more than twelve months from the date thereof, *"to provide means for funding its*

floating debt, or for the payment of money borrowed for any lawful purpose." This language on its face might be claimed to permit the funding of a floating debt-incurred, among other reasons, for the purpose of meeting operating expenses, or for other purposes than those generally recognized as a proper and reasonable basis for capitalization, either in the form of stock or bonds. While the practice of the Board has been on applications to fund floating debt to require evidence as to the purposes for which it was contracted, and to permit its capitalization only for such purposes as the Board regarded as proper and reasonable, the right of the Board to follow this practice has never been judicially determined. Under section 16 of the pending bill, house 2329, the Board is specifically given the power to determine the amount of the proposed issue of evidence of indebtedness, payable at periods of more than twelve months after the date thereof, which is reasonable and proper.

16. Under existing provisions of law has the board of railroad commissioners any supervision over the issue of notes and other evidences of indebtedness payable in one year or less from their date, and is it desirable that the approval of said board, or of the proposed public service commission, should be required before such notes and other evidences of indebtedness can be issued by a railroad corporation?

Under existing provisions of law the board of railroad commissioners exercises no supervision over the issue of short-time obligations. Railroad corporations have not been required to secure the approval of the Board in advance of any issue of such short-time obligations, upon the theory that such a requirement would hamper the companies in making prompt provision for requirements arising from time to time in the normal conduct of their business. Like all other business concerns, railroad corporations are obliged from time to time to secure temporary financial accommodation upon the credit of the company. If the Board were required to pass upon every transaction of that kind in advance we should be obliged either to act in a perfunctory manner and to give a deceptive sanction to a transaction of which we knew little or nothing, or else to embarrass the company by the delay incident to a proper investigation of the disbursements made or to be made by the corporation and an appraisal of the physical value of the improvements or betterments represented by such expenditures.

It seems to us that a railroad corporation may properly be left free to finance its temporary requirements in the first instance in

its own way, in view of the fact that it does not thereby relieve itself from a complete investigation by the Board in regard to the whole transaction when the corporation petitions the Board at a later time for the approval of an issue of bonds to fund this indebtedness.

17. Will the proposed public service commission, under the provisions of the pending bill, house No. 2329, be able more effectually to supervise and regulate the issue of stock and funded debt for the purpose of funding floating debt, and for other purposes, than under the present provisions of law?

Under the provisions of the pending bill the proposed public service commission will unquestionably be able more effectually to supervise and regulate the issue of corporate securities by railroad companies than under the present provisions of law. Under the provisions of the pending bill not only have the powers now exercised by the board of railroad commissioners in the regulation of the issue of corporate securities by railroad companies been enlarged in certain respects beyond the present law, as has already been pointed out, but provision has also been made for the more efficient exercise of the statutory powers vested in the Board.

The present system of railroad regulation in this state, no matter how admirably it may have served the needs of an earlier time, is no longer adequate for the larger needs of the present day, and the railroad commission with its present organization and equipment is no longer an efficient instrument for the proper discharge even of the powers which are vested in it under the present law. The provisions in the pending bill, by enlarging the membership of the commission, by making provision for the appointment of a counsel and such engineers, accountants, statisticians, bureau chiefs and division heads, and other subordinates as may be necessary, for the efficient discharge of the administrative functions of the commission, by the requirements for greater publicity on the part of the corporations subject to its jurisdiction, by empowering the commission to make a thorough investigation of all railroad accounts and a valuation of all railroad properties whenever it deems the same advisable, by vesting the commission with mandatory rather than recommendatory powers, by making proper provision for the enforcement of its decrees, and in many other respects would make it possible, if the bill were enacted, for the commission to discharge in a much more efficient manner than heretofore its powers in relation to the supervision of the issue of corporate securities of railroad

companies, as well as its other functions in the regulation of the rates, service, accommodations and facilities of the corporations under its jurisdiction.

18. Are sections 15 and 16, or some similar provisions to enable railroad corporations to secure more readily additional funds, necessary or desirable, in your opinion, to the efficient exercise of the powers given to the public service commission in house bill No. 2329 to order electrification and other improvements?

Sections 15 and 16, in our judgment, are not essential to enable the proposed public service commission to order electrification and other improvements upon railroad properties, but the provisions of these sections or some similar provisions would be likely to promote the more efficient exercise of such powers by the proposed commission.

While we believe it is essential, in the interests of the corporations themselves no less than of the public which they serve, that the capital stock of railroad corporations should be fully paid in in cash, and that every dollar of capital expenditure, whether financed by stock, bonds or other obligations, should be represented by a dollar's worth of value in the railroad properties, we believe that the provisions of sections 15 and 16, or some similar modifications of the present law relative to the issue of railroad securities, are desirable in order to enable railroad corporations to raise the money needed for improvements and extensions of their railroad lines, equipment, motive power and station facilities.

Any condition, whether due to the mismanagement of railroad officials or restrictive legislation, which makes it difficult or impossible to attract the private capital necessary to finance desired improvements upon railroad properties, will proportionately hamper any public service board in securing for the public the accommodations and facilities which it has a right to demand.

Railroad corporations are created to perform a public service, to provide transportation at the lowest rates, of the highest efficiency and with the greatest safety possible. Financial regulations are adopted and from time to time changed as in the judgment of the legislature will best enable the corporations to obtain the necessary capital to build and equip their railroads and make the necessary improvements and developments which the needs of the public and the introduction of new methods demand.

While it is proper that all reasonable protection shall be given under the law to the investors in railroad securities, such protection

should not be given by the imposition of unusual restrictions which are likely to hamper needed improvements in service and facilities to the prejudice of the traveling public, whose interests should be regarded as paramount in all matters of railroad legislation.

19. Are sections 15 and 16 of house bill No. 2329 necessary, in your opinion, to enable the Boston and Albany Railroad Company to raise, under the terms of its lease to the New York Central and Hudson River Railroad Company, the money necessary to electrify any substantial part of its railroad? And are they similarly necessary in the case of any other corporations whose railroads are leased?

In Massachusetts there are many leased railroads, such as the Old Colony, the Boston and Providence, the Boston and Lowell, the Fitchburg, the Connecticut River and the Boston and Albany. The leases of these railroads, in general, provide that the lessor companies must issue from time to time, at the request of the lessee, additional bonds or additional bonds and stock to pay for needed improvements of the leased properties. It is rarely, however, that the lessor, by the terms of the lease, is put under an express obligation to execute a mortgage to secure these bonds. In view of this situation certain legal questions have been raised as to the possibility of enforcing compliance with any order of a public service board requiring any large expenditures for electrification or other purposes upon the lines of these leased railroads. We have had no opportunity to make an examination of the various railroad leases in this commonwealth, but as specific reference has been made in this question to the Boston and Albany Railroad, we will briefly consider the issue raised as it affects that company, which may be regarded as broadly typical of the other leased railroads in the state.

The Boston and Albany Railroad has outstanding capital stock to the amount of \$25,000,000. It has no paid in premiums on account of stock, nor has it any mortgage upon its property. On June 30th last it had a funded debt consisting entirely of debenture bonds amounting to \$21,985,000. If a petition of that company now pending before the Board is approved, the Boston and Albany Railroad will have practically exhausted the limit of debenture bonds which it is possible for that company to issue under the present law. In 1899 the Boston and Albany Railroad was leased to the New York Central Railroad. This lease contains no provision in regard to the issue of stock by the lessor company. The second paragraph of the eighth section of the lease provides that

the lessee shall have the right to make permanent additions to the road and that the lessor shall, at the request of the lessee, issue such bonds as may be required for the purpose, and either assented to by the board of directors of the lessor or approved by the railroad commissioners.

Under these circumstances it has been contended by railroad counsel that the Boston and Albany Railroad has no authority to issue additional stock; that it has exhausted the limit of debenture bonds which it may legally issue; and that it cannot be compelled to execute a mortgage upon its property to secure the bonds which would be necessary to finance the expenditures necessary for electrification or other large improvements. While it is impossible, in advance of any judicial decision, to render any authoritative opinion upon that question, we do not find ourselves in accord with the contention made by counsel for the Boston and Albany Railroad.

While no specific reference is made in the lease to the issue of stock by the lessor company, it seems to us that if such an issue was the only way to comply with the mandate of a public service commission acting for the general court it is probable, in view of the provisions of the Act of 1900 referred to below, that the courts would find some way to compel the company to issue stock and if necessary to readjust the terms of the lease for that purpose.

Moreover, we are of the opinion that the money necessary to finance such improvements might be made by the issue of mortgage bonds under the provisions of the Act of 1912. The lease of the Boston and Albany Railroad to the New York Central Railroad, as we have already seen, provides for the issue of bonds by the lessor company, for the purpose of meeting the cost of needed improvements. We know of no authority for restricting the meaning of the word *bonds* as found in this lease to unsecured or debenture bonds. It seems to us that the word must mean any such bonds as the company may by law be authorized to issue and that may be required. If, therefore, a public service commission of this state should order electrification on the Boston and Albany Railroad, the improvement, in our judgment, could not be blocked by the refusal of the directors of that company to authorize the issue of mortgage bonds under the Act of 1912.

The lease of 1899 is to be construed of course in connection with the act of the legislature (chapter 468 of the Acts of 1900) consenting to it. Section 1 of this act gives the consent of the Commonwealth to the contracts of November 15, 1899, upon the conditions set forth in the rest of the act, which includes in section 2 an

express reservation to the commonwealth of all the rights and privileges it then had, including specifically the right "to compel service and to impose restrictions" and any and all other rights which it might then or hereafter have by law. Section 5 provides that the lessee shall be subject to all laws now or hereafter in force respecting railroad corporations incorporated within the commonwealth; and sections 9, 10 and 11 give full power to the attorney-general to enforce the foregoing conditions and restrictions.

It seems clear that these provisions make it competent for the general court or a public service board, acting under delegated authority, to pass such orders respecting the substitution of electric motive power for steam or for other improvements as may, from time to time, seem wise, and that in one way or another the railroad companies must meet these requirements if they financially can.

If they are financially unable to do so, this fact would not only have great preliminary weight with the board but might be a controlling consideration with the courts. If, however, the company is financially able to do the work required, but labors under some merely technical disability with reference to the mode of finance, this difficulty could in all probability be met by the companies themselves in the manner already pointed out; but if further legislation is necessary, that of course could be had for the asking, as happened last year in the case of the electrification of the Providence division of the New York, New Haven and Hartford railroad.

Whether the view of the law which we have expressed is sound or otherwise, it is undoubtedly true that large public improvements upon the Boston and Albany and other leased railroads could be effected with much less embarrassment and delay if sections 15 and 16 of the pending bill were enacted into law. Whatever the ultimate authority of the public service commission might prove to be, any order of such commission for electrification or other large improvements upon the Boston and Albany or other leased railroads might be followed, not by the beginning of electrification but only by the beginning of long and annoying litigation through state and federal courts to test the right of the commission to enforce compliance with its order.

To sum up the whole situation, we believe that sections 15 and 16 of house bill No. 2329 are not necessary to enable the Boston and Albany Railroad to raise the money necessary to electrify any substantial part of its railroad, but the provisions of these sections are desirable in the interest of securing the prompt undertaking and completion of such improvements.

In addition to furnishing answers to the questions specifically referred to us, we take the liberty of expressing our views in relation to certain other aspects of the proposed legislation.

In the first place, as the result of the best judgment which we are able to bring to the consideration of the problem, after careful investigation and mature deliberation, we are of the opinion that sections 15 and 16 of the pending bill represent on the whole an improvement upon the present law.

We believe, however, that we would be derelict in our public duty if we failed to call the attention of the general court to certain deficiencies in the financial legislation provided for in sections 15 and 16 of the pending bill which, in our judgment, should be supplied if this bill is to be made a really effective instrument of public regulation.

It makes little difference what provisions of law we enact in regard to the issue of railroad securities if the dominant railroad of this commonwealth, the New York, New Haven and Hartford Railroad Company, is left free to act upon the assumption that in its general corporate affairs it is not a Massachusetts corporation, and that it may continue, in the future as in the past, to issue its stocks and bonds without the approval of the board of railroad commissioners or any other public board which may be its successor.

The decision of our Supreme Court in the case of *The Attorney-General vs. New York, New Haven and Hartford Railroad*, 198 Mass. 413, makes it probable that the contention then made by the railroad company, that it was not, as to the issuance of securities, within the control of our railroad commission, is unsound. Without in any way passing upon the validity of this claim it is clearly wise to make the statute law so explicit that no such claim can hereafter be made.

A report made to the legislature in 1910 by a joint board consisting of the railroad commissioners, the tax commissioner and the bank commissioner commented upon this situation in the following language:

In the opinion of this Board, the essential factor which has in large measure created the strained relations between the corporation and the Commonwealth is to be found in the exercise of franchises and privileges granted by the State of Connecticut, and assumed and exercised by the New York, New Haven and Hartford Railroad Company in violation of the laws and public policy of Massachusetts. Those franchises in operation amount to converting the New York, New Haven and Hartford Railroad Company into a non-supervised holding com-

pany, unless the public authorities of Massachusetts shall in some degree exercise supervision.

It is too clear for discussion that the general corporate affairs of the New York, New Haven and Hartford Railroad Company, so long as it is a corporation of Massachusetts, should be subject to the supervision and control of the public authorities of the Commonwealth. The phrase "the general corporate affairs" is intended to designate and include all acts done and expenditures incurred by the corporation in the exercise of powers and franchises of a general character, whose effect is not merely local, but works changes in the relations of the company to private persons and to the public authority in the several states in which it is incorporated. To hold otherwise would permit the New York, New Haven and Hartford Railroad Company by a series of subsidiary companies and holding devices, to indirectly acquire, under franchises exclusively granted by the State of Connecticut, the control of the transportation facilities of New England and issue securities therefor in such a manner as to seriously affect the public welfare and possibly jeopardize the value of its own securities and corporate assets.

This same subject was further considered and elaborated in the report of the validation commission in 1911, and specific recommendations for legislation were made in that report. The subject was again considered and the recommendations for appropriate legislation were renewed in the last annual report of the board of railroad commissioners. We believe that experience has demonstrated that it is unwise for the commonwealth to delay longer in the assertion of its right of regulation over every public service corporation which claims the protection of its laws.

As we have already intimated, the existing situation would in no way be improved by eliminating sections 15 and 16 from the pending bill. The claim that these sections are objectionable because of modifications which they make in the existing law has little substantial basis. The claim that financial provisions dealing with stock and bond issues are not germane to the general purposes of the bill seems to us equally without foundation, not only because such provisions have usually been included in the special acts creating public service commissions in other states, but also because the proper regulation of corporate finances is, in many ways, the most important function that can be vested in any supervising board.

In so far as criticism may properly be directed to sections 15 and 16 of the pending bill, it is not so much because of any insuf-

iciency in the provisions of these sections for adequate and proper regulation of corporate expenditures, but because of the uncertainty of the application of these provisions to the New York, New Haven and Hartford Railroad Company.

Should the members of the legislature so desire we should be glad to co-operate with them in drafting provisions which we believe would be effectual in curing this defect in the bill.

FREDERICK J. MACLEOD,
CLINTON WHITE,
Railroad Commissioners.

AUGUSTUS L. THORNDIKE,
MAY 8, 1913. [R. R. C. 9341] - *Bank Commissioner.*

EXPENSES OF OFFICE.

BOARD OF RAILROAD COMMISSIONERS.

SEVEN MONTHS ENDING JUNE 30, 1913.

Advertising, ...	\$116 54
Books and maps	360 93
Care of office, ...	175 00
Clerk and Assistant Clerk, salaries, ...	3,208 34
Clerks and stenographers salaries, ...	2,905 00
Clerical and stenographic services, additional, ...	517 00
Commissioners, salaries, ...	9,333 34
Expert services, ...	9,260 60
Express and teaming, ...	89 52
Furniture and repairs, ...	277 06
Inspectors, salaries.	11,666 70
Inspectors, expenses, ...	1,602 73
Lighting.	170 10
Messenger, salary, ...	700 00
Postage, ...	996 00
Printing, annual report, ...	8,241 76
Printing, miscellaneous, ...	396 94
Rent, ...	3,033 31
Stationery and office supplies, ...	764 16
Telephones and telegrams, ...	253 50
Traveling expenses, ...	216 75
Typewriters, ...	213 00
Sundries, ...	274 96
Total.	<u>\$54,773 24</u>

EXPENSES OF OFFICE.

PUBLIC SERVICE COMMISSION.

FIVE MONTHS ENDING NOVEMBER 30, 1913.

Accounting department, salary of chief, ...	\$1,438 17
Advertising, ...	97 35
Books and maps, ...	216 10
Care of office, ...	222 75
Clerks and stenographers, salaries, ...	2,075 00
Clerical and stenographic services, additional, ...	618 80
Commissioners, salaries, ...	16,300 07
Expert services, ...	5,510 02
Inspectors, salaries, ...	8,333 30
Inspectors, expenses, ...	882 42
Lighting, ...	76 30
Messenger, salary, ...	500 00
Postage, ...	459 50
Printing and binding, miscellaneous, ...	495 61
Rate and Tariff bureau, salary of chief, ...	526 83
Rent, ...	2,166 69
Secretaries, salaries, ...	2,872 33
Stationery and office supplies, ...	1,127 13
Stenographic reports of hearings, ...	1,341 40
Telephones and telegrams, ...	277 54
Traveling expenses, ...	299 45
Typewriters, ...	233 00
Sundries, ...	59 94
Total, ...	\$46,129 70

TABULATED STATEMENTS

COMPILED FROM THE

Returns of Railroad Corporations

FOR THE

YEAR ENDING JUNE 30, 1913.

DESCRIPTION OF RAILROADS OWNED AND OPERATED.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) (BRANCHES IN ITALICS.)	1. — TRUNK.		2. — LAYERS OF LINE.		3. — SECOND TRACK.		4. — SIDE TRACK.		5. — Total Length computed as Single Track.
	From	To	Total.	In Mass- achusetts.	Total.	In Mass- achusetts.	Total.	In Mass- achusetts.	
ATTLEBOROUGH BRANCH, ¹ BOSTON & ALBANY (operated by the New York Central & Hudson River, Leases), Athol, Grand Junction, Hudson & Chatham, Mifflord, Milbury, Newton Highlands, Newton Lower Falls, Saxonsville, Spencer, Boston & Maine,* Boston Terminal Co.,* Chester & Becket, North Brookfield, Pittsfield & North Adams, Prov., Webster & Springfield, Ware River. BOSTON & LOWELL. (See Boston & Maine.)	Attleborough, Boston, Athol Jct., Cottage Farm, Chatham, N. Y., So. Framingham, Millbury Jct., Brookline Jct., Riverside, Natick, Spencer, B. & A. line, Athol, Boston Terminal line, Chester, East Brookfield, North Adams Jct., Webster Jct., Palmer, Boston, Boston, Jewett, Me., No. Cambridge, Warester,	No. Attleborough, Rensselaer, N. Y., Athol, East Boston, Hudson, N. Y., Milford, Millbury Village, Riverside, Newton Lower Falls, Saxonsville, South Spencer, Athol station, So. Station, Boston, Chester Quarries, North Brookfield, North Adams, Webster, Winchendon, Rigby, Me., Rigby, Me., Intervale, N. H., Northampton, Westbrook, Me.,	3.72 199.23 45.26 9.51 17.33 11.98 3.29 9.89 1.25 3.89 2.18 .19 .45 5.27 4.00 18.56 11.23 49.35 — 111.11 104.90 73.37 95.69 139.47	3.72 161.35 45.26 9.51 — 11.98 3.29 9.89 1.25 3.89 2.18 .19 — 5.27 4.00 18.56 11.23 49.35 — 36.56 41.45 — 95.69 39.53	— 301.41 ² — 8.73 1.06 — — 9.89 — — — — — — — — — — — — 94.78 ⁴ 65.10 ⁵ — — 40.13	— 237.14 ³ — 8.73 — — — 9.89 — — — — — — — — — — — — 38.09 ⁴ 42.43 ⁵ — — 39.53	1.42 280.28 11.89 40.40 9.70 6.31 1.53 8.05 1.13 3.14 1.17 — — 1.17 1.23 18.00 4.04 7.94 — 112.78 98.46 18.95 26.04 83.55	1.42 250.10 11.89 40.40 — 5.31 1.53 8.06 1.13 3.14 1.17 — — 1.17 1.23 18.00 4.04 7.94 — 85.48 76.86 — — 53.71	5.14 780.92 57.15 58.64 28.09 17.29 4.82 27.83 2.38 7.03 3.35 .19 .45 6.44 5.23 36.56 15.27 57.29 — 318.67 268.46 92.32 121.73 209.15
BOSTON & MAINE, Warester,									

- ¹ Operated by electricity.
² Including 78.86 miles of third track and 22.33 miles of fourth track.
³ Including 53.47 miles of third track and 22.33 miles of fourth track.
⁴ Including 1.53 miles of third track.
⁵ Including 1.03 miles of third track.
⁶ Trackage rights.

Description of Railroads Owned and Operated — Continued.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) (BRANCHES IN ITALICA.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACK.		4. — SIDE TRACK.		5. — Total Length computed as Single Track.
	From	To	Total.	In Massachusetts.	Total.	In Massachusetts.	Total.	In Massachusetts.	
BOSTON & MAINE — Con.									
<i>Charlestown,</i>	East Somerville,	Charlestown,	1.09	1.09	1.09	1.09	—	—	2.18
<i>Chelsea Beach,</i>	Revere,	Saugus River Jet.,	3.34	3.34	2.49	2.49	.19	.19	6.02
<i>Dover,</i>	Dover, N. H.,	Portsmouth, N. H.,	10.88	—	—	—	3.27	—	14.15
<i>Dover & Winnepiscogee,</i>	Dover, N. H.,	Alton Bay, N. H.,	29.00	—	—	—	7.66	—	36.66
<i>Erie,</i>	Wenham,	Conomo,	6.00	6.00	—	—	1.92	1.92	7.92
<i>Georgetown,</i>	Bradford,	Georgetown,	5.87	5.87	—	—	1.83	1.83	7.70
<i>Gloucester,</i>	Beverly,	Rockport,	16.94	16.94	13.31	13.31	6.06	6.06	26.31
<i>Lawrence,</i>	Salem,	North Andover,	19.89	19.89	1.64	1.64	7.39	7.39	28.92
<i>Marblehead,</i>	Salem,	Marblehead,	3.52	3.52	—	—	.63	.63	4.15
<i>Medford,</i>	Medford Jet.,	Medford,	2.00	2.00	2.00	2.00	1.92	1.92	5.92
<i>Medford,</i>	South Lawrence,	State Line, N. H.,	3.75	3.75	1.00	1.00	16.07	16.07	20.82
<i>Newburyport,</i>	Wakefield Jet.,	Newburyport,	30.37	30.37	—	—	6.29	6.29	36.66
<i>Newburyport City,</i>	Newburyport,	Newburyport,	1.97	1.97	—	—	1.32	1.32	3.29
<i>Orchard Beach,</i>	Old Orchard, Me.,	Camp Ellis, Me.,	3.27	—	—	—	.48	—	3.75
<i>Portsmouth,</i>	Portsmouth, N. H.,	N. Hampton, N. H.,	18.10	—	—	—	1.14	—	19.24
<i>Salisbury,</i>	Salisbury,	Amesbury,	3.79	3.79	—	—	2.44	2.44	6.23
<i>Saugus,</i>	Everett Jet.,	West Lynn,	9.55	9.55	9.46	9.46	6.13	6.13	25.14
<i>Somerset,</i>	Rollinsford, N. H.,	Somerset, N. H.,	2.75	—	—	—	1.83	—	4.58
<i>South Reading,</i>	Peabody,	Wakefield Jet.,	8.12	8.12	—	—	2.41	2.41	10.53
<i>Swampscott,</i>	Swampscott,	Marblehead,	3.96	3.96	.62	.62	1.20	1.20	5.78
<i>West Amesbury,</i>	Merrimac,	Newton Jet., N. H.,	4.45	2.13	—	—	.65	.65	5.10
<i>Woburn,</i>	Saunbornville, N. H.,	Wolboro', N. H.,	12.03	—	—	—	1.01	—	13.04
<i>Connection Lowell & Lawrence with Lowell & Andover R.R.,</i>	Lowell,	Lowell,	.25	.25	.37	.37	—	—	.62
Boston & Albany,*	Winchendon,	Winchendon,	.21	.21	—	—	—	—	.21
Boston & Lowell,	Boston,	Lowell,	26.27	26.27	26.27	26.27	74.10	66.71	126.64
Bedford & Billerica,	Bedford,	North Billerica,	7.63	7.63	—	—	.68	.68	8.31
Lawrence,	Wilmington,	Wilmington Jet.,	3.21	3.21	—	—	1.98	1.98	5.19
Lexington,	Somerville Jet.,	Lexington,	8.11	8.11	8.11	8.11	4.12	4.12	20.34

	Lowell,	Lawrence,	12.42	12.43	-	-	7.08	7.68	20.10
<i>Lowell & Lawrence, half, Manchester & Keene-one-half,</i>	Greenfield, N. H.,	Keene, N. H.,	14.80	-	-	-	1.34	-	16.14
<i>Middlesex Central,</i>	Lexington,	Reformatory,	11.08	11.08	-	-	3.88	3.88	14.96
<i>Mytic,</i>	Mystic Jct.,	Mystic Wharves,	2.25	2.25	.85	.85	42.18	42.18	45.28
<i>Salem & Lowell,</i>	Peabody,	Tewksbury Jct.,	16.80	16.80	-	-	8.15	24.95	24.95
<i>Stoneham,</i>	Montvale,	Stoneham,	2.50	2.50	-	-	1.70	1.70	4.20
<i>Woburn,</i>	Winchester,	No. Woburn Jct.,	6.20	6.20	6.20	6.20	3.38	3.38	15.78
<i>Concord & Montreal,</i>	Nashua, N. H.,	Groveton, N. H.,	181.07	-	36.62*	-	124.37	-	342.08
<i>Concord & Manchester, 1</i>	Concord, N. H.,	Manchester and Penna-cook, N. H.,	28.70	-	-	-	2.02	-	30.72
<i>Franklin & Tilton,</i>	Franklin, N. H.,	Tilton, N. H.,	4.95	-	-	-	3.33	-	8.28
<i>Hooksett,</i>	Hooksett, N. H.,	Bow Jct., N. H.,	7.59	-	-	-	3.42	-	11.01
<i>Lake Shore,</i>	Lakeport, N. H.,	Alton Bay, N. H.,	17.28	-	-	-	1.98	-	19.26
<i>Manchester & Keene-one-half,</i>	Greenfield, N. H.,	Keene, N. H.,	14.79	-	-	-	1.34	-	16.13
<i>Manchester & Milford,</i>	Grasmere Jct., N. H.,	East Milford, N. H.,	18.54	-	-	-	.71	-	19.25
<i>Manchester & No. Weare,</i>	Manchester, N. H.,	Henniker Jct., N. H.,	24.50	-	-	-	9.45	-	33.95
<i>Mount Washington,</i>	Wing Road, N. H.,	Base Station, N. H.,	20.17	-	-	-	5.41	-	25.58
<i>New Boston,</i>	Parker's, N. H.,	New Boston, N. H.,	5.19	-	-	-	.79	-	5.98
<i>Profile & Franconia,</i>	Bethlehem Jct., N. H.,	Bethlehem & Profile House, N. H.,	12.84	-	-	-	1.21	-	14.05
<i>Suncook Valley,</i>	Suncook, N. H.,	Pittsfield, N. H.,	17.41	-	-	-	3.77	-	21.18
<i>Suncook Valley Extension,</i>	Pittsfield, N. H.,	Ctr. Barnstead, N. H.,	4.46	-	-	-	1.25	-	5.71
<i>Tilton & Belmont,</i>	Belmont Jct., N. H.,	Belmont, N. H.,	4.17	-	-	-	.77	-	4.94
<i>Wassuk,</i>	Cherry Mt., N. H.,	Jefferson, N. H.,	3.48	-	-	-	.31	-	3.79
<i>Whitfield & Jefferson,</i>	Whitesfield Jct., N. H.,	Berlin Mills, N. H.,	30.58	-	-	-	12.64	-	43.22
<i>Concord & Portsmouth,</i>	Portsmouth, N. H.,	Manchester, N. H.,	39.87	-	-	-	17.20	-	57.07
<i>Connecticut River,</i>	Springfield,	Brattleboro, Vt.,	59.65	50.08	38.31*	38.31*	66.23	62.81	164.24
<i>Ashuelot,</i>	Dole Jct., N. H.,	Keene, N. H.,	21.82	-	-	-	5.68	-	27.50
<i>Chicopee Falls,</i>	Chicopee Jct.,	Chicopee Falls,	2.35	2.35	-	-	1.72	1.72	4.07
<i>East Deerfield,</i>	Deerfield Jct.,	East Deerfield,	1.04	1.04	-	-	.19	.19	1.23
<i>Conn. & Pass. Rivers,</i>	Mt. Tom Jct.,	East Hampton,	3.50	3.50	-	-	1.47	1.47	4.97
<i>Delaware & Hudson,*</i>	White River Jct., Vt.,	Canada Line,	110.30	-	-	-	46.28	-	156.58
	Mechanicville, N. Y.,	Crescent, N. Y.,	-	-	6.94	6.94	-	-	6.94

* Including 1.25 miles of third track.

* Including .80 mile of third track.

* Trackage rights.

1 Electric street railway.

2 Total length .37 mile double track, of which .12 mile of one track is owned by the Lowell & Andover.

Description of Railroads Owned and Operated — Continued.

RAILROADS AND BRANCHES. (LEASED ROADS IN ITALIC.) (BRANCHES IN ITALIC.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACK.		4. — SIDS TRACK.		5. — Total Length computed as Single Track.
	From	To	Total.	In Massa- chusetts.	Total.	In Massa- chusetts.	Total.	In Massa- chusetts.	
Boston & Maine — Con.									
Fitchburg.	Boston.	Fitchburg.	49.65	49.65	55.35 ¹	55.35 ¹	98.72	98.72	203.72
	Greenfield.	Rotterdam Jet., N. Y.,	105.25	44.01	70.99	44.01	38.71	38.71	283.47
	State Line, Vt.,	Troy, N. Y.,	40.30	—	15.55	—	9.82	—	66.67
	South Ashburnham.	Bellows Falls, Vt.,	53.85	10.76	—	—	4.65	4.65	82.69
	South Ashburnham.	Ashburnham,	2.59	2.59	—	—	.35	.35	2.94
	Ayer.	Greenville, N. H.,	23.64	14.06	—	—	5.45	2.76	29.09
	Charlestown.	Charlestown,	.66	.66	.49	.49	—	—	1.15
	South Acton.	Marlborough.	12.35	12.35	—	—	4.30	4.30	16.65
	Squannacook Jet.,	Milford, N. H.,	21.73	9.56	—	—	5.09	2.27	26.82
	Winchendon.	Peterboro', N. H.,	15.93	2.25	—	—	2.50	—	18.43
	Saratoga Jet., N. Y.,	Saratoga, N. Y.,	17.50	—	—	—	3.47	—	20.97
	Schuylcr Jet., N. Y.,	Schuylerville, N. Y.,	8.32	—	—	—	1.38	—	9.70
	West Cambridge.	Walham.	6.63	6.63	6.48	6.48	5.97	5.97	19.08
	Worcester.	Winchendon.	35.74	35.74	—	—	15.17	15.17	50.91
	Lenoxville, P. Q.,	Sherbrooke, P. Q.,	2.95	—	—	—	—	—	2.95
	Woburn Branch.	Horn Pond.	.59	.59	—	—	—	—	.69
	Kennebunk & Kennebunkport.	Kennebunkport, Me.,	4.50	—	—	—	1.07	—	5.57
	Lowell & Andover.	Lowell Jet.,	8.85	8.85	7.28	7.28	5.94	5.94	22.07
	State Line, N. H.,	Manchester, N. H.,	22.39	—	—	—	12.23	—	34.62
	Massachusetts Valley.	Lenoxville, P. Q.,	31.95	—	—	—	9.55	—	41.50
	<i>Stanslead.</i>	Stanslead, P. Q.,	3.51	—	—	—	1.00	—	4.51
	Nashua & Acton.	Nashua Jet., N. H.,	20.12	15.14	—	—	3.41	1.91	23.53
	Nashua & Lowell.	Nashua, N. H.,	14.50	9.25	14.50	9.25	14.42	9.22	43.42
	N. Y., N. H. & Hartford,*	Concord Jet.,	4.21	4.21	—	—	—	—	4.21
	Norfolk.	White River Jet., Vt.,	69.50	—	—	—	25.65	—	95.15
	<i>Bridol.</i>	Bristol, N. H.,	13.41	—	—	—	1.10	—	14.51
	Concord & Claremont.	Claremont Jet., N. H.,	56.30	—	—	—	11.84	—	68.14
	Concord & N. H.,	Hillsboro' Bridge, N. H.,	14.60	—	—	—	2.34	—	16.94
	Concord & N. H.,	Hillsboro', N. H.,	18.51	—	—	—	2.03	—	20.54
	Peterboro' & Hillsboro'.								

Description of Railroads Owned and Operated — Continued.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) (BRANCHES IN ITALICS.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACK.		4. — SIDE TRACK.		5. — Total Length computed as Single Track.
	From	To	Total.	In Massachusetts.	Total.	In Massachusetts.	Total.	In Massachusetts.	
NANTUCKET, ¹	Nantucket, .	Siasconset, .	9.12	9.12	—	—	.15	.15	9.27
NASHUA & ACTON. (See Boston & Maine.)	—	—	—	—	—	—	—	—	—
NASHUA & LOWELL. (See Boston & Maine.)	—	—	—	—	—	—	—	—	—
NEW LONDON NORTHERN (operated by the Central Vt. Ry. Co.), .	New London, Ct., .	Brattleboro', Vt., .	123.50	54.90	—	—	35.68	14.05	169.18
	Woodlawn, Jct., N. Y., .	Providence, R. I., .	173.46	—	296.74 ²	—	218.74	—	688.94
	Boston, .	Hopewell Jct., N. Y., .	213.08	51.28	170.93	51.28	157.44	43.72	541.45
	New Haven, Ct., .	Williamsville, Ct., .	51.27	—	5.23	—	17.93	—	74.43
	Cedar Hill, Ct., .	Springfield, .	60.27	5.95	60.33	5.98	99.08	8.68	219.68
	New Haven, Ct., .	Pittsfield, .	119.82	36.69	23.58	—	56.52	23.08	189.92
	New Haven, Ct., .	Shelburne Jct., .	94.12	43.38	—	—	41.66	21.45	135.78
	Naugatuck Jct., Ct., .	Winsted, Ct., .	56.03	—	27.36	—	46.95	—	130.33
	Franklin Jct., .	Ashland, .	19.78	19.78	—	—	3.90	3.90	23.68
	Berlin, Ct., .	Middleton, Ct., .	9.70	—	—	—	7.32	—	17.02
	Bridgeport, Ct., .	Botsford, Ct., .	14.66	—	—	—	5.59	—	20.25
	Brookfield, Ct., .	Danbury, Ct., .	3.98	—	2.09	—	1.67	—	7.74
	Colchester, .	Colchester, Ct., .	3.59	—	—	—	1.14	—	4.73
Connection with Prov. & Wor. R.R., B. & P., etc.,	East Providence, R. I., .	East Providence, R. I., .	.30	—	.30	—	—	—	.60
Danbury, .	Danbury, Ct., .	South Norwalk, Ct., .	22.99	—	—	—	16.17	—	39.16
Dedham, .	Dedham Jct., .	Dedham, .	1.53	1.53	—	—	.57	.57	2.10
Franklin, .	Valley Falls, R. I., .	Franklin, .	13.59	6.52	—	—	1.89	.86	15.28
Harrisville, .	Woonsocket, R. I., .	Harrisville, R. I., .	9.45	—	—	—	1.22	—	10.67
Harbor Jct., .	Auburn, R. I., .	Providence, R. I., .	3.58	—	—	—	1.26	—	6.53
Islington, .	Islington, .	Dedham, .	2.00	2.00	1.69	—	.11	.11	2.11
Litchfield, .	Hawleyville, Ct., .	Litchfield, Ct., .	32.28	—	—	—	4.65	—	36.93
Marion, .	Marion, Ct., .	Rockville, Ct., .	7.22	—	—	—	.58	—	7.80
Meriden, .	Westfield, .	Waterbury, Ct., .	24.19	—	—	—	6.26	—	30.45
Needham, .	West Roxbury, .	Needham, .	4.53	4.53	4.10	4.10	.13	.13	8.76

Needham.	Needham Jct.,	Cook Street,	3.90	3.90	2.50	1.72	1.72	5.03
New Britain,	Berlin, Ct.,	New Britain, Ct.,	2.56	2.56	-	7.49	-	12.56
New Canaan,	Stamford, Ct.,	New Canaan, Ct.,	7.92	7.92	-	2.86	-	10.78
New Hartford,	Farmington, Ct.,	New Hartford, Ct.,	14.87	14.87	-	2.33	-	17.20
Pascoag,	Providence, R. I.,	Douglas, Jct.,	27.73	27.73	1.63	6.63	.70	24.36
Pawtucket,	Auburn, R. I.,	Hopk, R. I.,	10.36	10.36	-	1.91	-	12.27
Ridgefield,	Branchville, Ct.,	Ridgefield, Ct.,	4.16	4.16	-	1.21	-	5.37
Rockville,	Vernon, Ct.,	Rockville, Ct.,	4.60	4.60	-	2.70	-	7.30
South Boston Freight,	Boston,	South Boston,	1.04	1.04	1.04	39.05	39.05	41.13
Southbridge,	E. Thompson, Ct.,	Southbridge,	17.36	17.36	12.01	3.59	3.20	20.95
Springfield,	East Hartford, Ct.,	Springfield Jct.,	28.31	28.31	8.14	8.45	5.04	36.76
State Line,	Van Deusenville,	State Line, Mass.,	9.54	9.54	-	-	-	9.54
Suffield,	Windsor Locks, Ct.,	Suffield, Ct.,	4.27	4.27	-	1.17	-	5.44
Turner's Falls,	South Deerfield,	Turner's Falls,	9.99	9.99	-	2.70	2.70	12.69
Tunney,	Providence, R. I.,	East Providence, R. I.,	1.38	1.38	2.10*	.96	-	4.94
Valley,	Hartford, Ct.,	Fenwick, Ct.,	46.20	46.20	-	18.62	-	64.82
Watertown,	Waterbury, Ct.,	Watertown, Ct.,	4.82	4.82	-	1.28	-	6.10
Worcester,	Worcester, N. Y.,	Fishkill Landing, N. Y.,	1.65	1.65	-	.96	-	4.37
Wickford,	Wickford Jct., R. I.,	Wickford Landing, R. I.,	3.42	3.42	-	2.19	2.19	9.89
Williamaburg,	Northampton,	Williamaburg,	57.76	57.76	1.37	22.06	-	81.08
Williamantic,	Providence, R. I.,	Williamantic, Ct.,	2.44	2.44	-	7.78	-	10.22
Wilson's Point,	South Norwalk, Ct.,	Wilson's Point, Ct.,	24.77	24.77	-	8.60	6.22	33.37
Woonsocket,	Woonsocket, R. I.,	Needham Jct.,	23.70	23.70	-	-	-	.22
Boston & Albany,*	Ashland Jct.,	Ashland,	.22	.22	-	-	-	6.34
Boston & Albany,*	Ashland,	South Framingham,	3.20	3.20	3.14	-	-	13.69
Boston & Albany,*	Newtown Highlands,	Four Track Jct.,	6.87	6.87	6.82	-	-	28.77
Boston & Albany,*	Pittsfield,	North Adams,	20.95	20.95	5.26*	2.56	2.56	82.04
Boston & Albany,*	South Framingham,	Boston,	20.78	20.78	61.26*	-	-	.59
Boston & Albany,*	Springfield Jct.,	Springfield,	.17	.17	.427	-	-	.59
Boston & Albany,*	Springfield Jct.,	Springfield,	.59	.59	-	-	-	1.14
Boston & Maine,*	Lowell Jct.,	Lowell,	.57	.57	.57	-	-	9.26
Boston & Maine,*	North Adams,	Williamstown,	4.63	4.63	4.63	-	-	9.18
Boston & Maine,*	Shelburne Falls,	Shelburne Falls,	4.59	4.59	4.59	-	-	34.90
Boston & Maine,*	Springfield,	Northampton,	17.05	17.05	17.85*	-	-	23.70
Boston & Maine,*	Sterling Jct.,	Worcester,	11.85	11.85	11.85	-	-	

* Including 2.03 miles of third track and .66 of a mile of fourth track.

† Including 62.26 miles of third track and 61.64 miles of fourth track.

‡ Including .11 of a mile of third and .11 of a mile of fourth track.

§ Operated by the Central New England.

* Trackage rights.

Description of Railroads Owned and Operated — Continued.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) (BRANCHES IN ITALIC.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACK.		4. — SUB TRACK.		5. — Total Length computed as Single Track.
	From	To	Total.	In Massachusetts.	Total.	In Massachusetts.	Total.	In Massachusetts.	
NEW YORK, NEW HAVEN & HARTFORD — Con.									
Boston & Providence, <i>Conn.</i>	Boston,	Providence, R. I.,	41.89 ¹	38.70	68.91 ²	61.42 ³	70.13	52.67	180.93
Connection with <i>Midland</i>									
<i>Dts.,</i>	Readville,	Readville,	1.40	1.40	1.40	1.40	—	—	2.80
<i>Dedham,</i>	Readville,	Dedham,	2.47	2.47	2.47	2.47	18.43	18.43	23.37
<i>India Point,</i>	East Jct.,	India Point, R. I.,	8.05	3.49	6.89	3.34	7.60	.11	22.54
<i>Stoughton,</i>	Canton Jct.,	Stoughton,	4.05	4.05	4.05	4.05	3.33	3.33	11.43
<i>West Roxbury,</i>	Forest Hills Station,	Dedham,	5.37	5.37	5.37	5.37	4.48	4.48	15.22
<i>Boston Terminal,*</i>	Boston Station,	Fort Point Channel,	.43	.43	1.26 ⁴	1.26 ⁴	—	—	1.68
<i>Chatham,</i>	Chatham,	Harwich,	7.07	7.07	—	—	1.00	1.00	8.07
<i>Central New England,*</i>	Hopewell Jct., N. Y.,	Poughkeepsie Jct., N. Y.,	12.00	—	—	—	—	—	12.00
<i>Harlem River & Port Chester,</i>	Poughkeepsie Jct., N. Y.,	Poughkeepsie, N. Y.,	1.30	—	—	—	—	—	1.30
<i>Holyoke & Westfield,</i>	Harlem River, N. Y.,	New Rochelle, N. Y.,	11.28	—	52.14 ⁵	—	91.99	—	155.41
<i>New York & Harlem,*</i>	Westfield,	Holyoke,	10.69	10.69	—	—	10.69	10.69	21.28
<i>Norwich & Worcester,</i>	Grand Central Terminal, N. Y.,	Woodlawn Jct., N. Y.,	11.91	—	36.00 ⁶	—	32.49	—	80.40
<i>Wye connection with P. & W. R.R. and N. & W. R.R.,</i>	Worcester,	Groton Jct., Ct.,	70.85	17.69	.72	.72	40.67	11.76	112.24
	Worcester,	Worcester,	.22	.22	.13	.13	—	—	.35
	Boston,	Newport, R. I.,	67.60	51.41	55.81 ⁷	55.81 ⁷	68.44	61.52	191.85
	Braintree Highlands,	Somerset Jct.,	36.31	36.31	27.29 ⁸	27.29 ⁸	34.04	34.04	97.04
	Middleborough,	Provincetown,	85.95	85.95	19.72	19.72	15.03	15.03	190.70
	Raynham,	Whitenton Jct.,	3.38	3.38	3.38	3.38	1.18	1.18	7.94
	Braintree,	Kington,	32.31	32.31	17.84	17.84	9.89	9.89	60.04
	South Braintree,	Plymouth,	28.04	28.04	14.15	14.15	8.69	8.69	48.88
	Framingham,	Lowell,	26.12	26.12	4.36	4.36	13.21	13.21	43.69
	New Bedford,	Fitchburg,	91.25	91.25	69.44 ⁹	69.44 ⁹	75.77	75.77	236.46
Old Colony,									

Attleboro',	Attleboro' Branch Jct.,	8.60	8.60	-	-	3.45	12.05
Bridgewater,	Whitman,	6.12	6.12	-	-	1.27	7.39
Brookton,	Elmwood,	.75	.75	-	-	-	.75
Connequot with Boston							
Dix.,	Boston,	.43	.43	.43	.43	.24	1.10
Dorchester & Milton,	Neposset,	8.29	8.29	.58 10	.58 10	1.75	5.02
Easton,	Mathepan,	7.56	7.56	-	-	1.00	8.86
Extension to Plymouth &	Matfield,						
Middle R.R.,	Middleborough,	.42	.42	-	-	-	.42
Fairhaven,	Fairhaven,	15.17	15.17	-	-	1.49	16.66
Fall River,	New Bedford,	12.25	12.25	-	-	4.26	16.60
Attleboro',	Attleboro',	5.41	5.41	-	-	3.01	8.42
Brookton,	Brookton,	7.80	7.80	-	-	3.17	10.97
Connequot,	Connequot,	5.05	5.05	-	-	2.88	7.93
Dorchester,	Dorchester,	1.63	1.63	-	-	.38	2.01
Easton,	Easton,	1.47	1.47	-	-	1.42	2.89
Extension to Plymouth &	Extension to Plymouth &	15.03	15.03	-	-	.95	15.98
Middle R.R.,	Middleborough,	8.04	8.04	-	-	1.47	9.51
Fairhaven,	Fairhaven,	6.95	6.95	6.88	6.88	3.39	17.23
Fall River,	Fall River,	6.35	6.35	-	-	.56	1.21
Attleboro',	Attleboro',	2.35	2.35	2.36	2.36	.52	5.23
Brookton,	Brookton,	5.03	5.03	-	-	1.58	6.61
Connequot,	Connequot,	1.65	1.65	1.65	1.65	.61	3.91
Dorchester,	Dorchester,	5.76	5.76	-	-	5.25	11.01
Easton,	Easton,	7.95	7.95	4.38	4.38	.43	13.60
Extension to Plymouth &	Extension to Plymouth &	.98	.98	-	-	-	.98
Middle R.R.,	Middleborough,	11.88	11.88	-	-	3.96	15.83
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
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Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
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Fall River,	Fall River,						
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Brookton,	Brookton,						
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Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						
Fairhaven,	Fairhaven,						
Fall River,	Fall River,						
Attleboro',	Attleboro',						
Brookton,	Brookton,						
Connequot,	Connequot,						
Dorchester,	Dorchester,						
Easton,	Easton,						
Extension to Plymouth &	Extension to Plymouth &						
Middle R.R.,	Middleborough,						

* Including only one-half the length of joint tracks between Providence station and Boston switch, so-called, viz.: 5.00 miles of first or single track; 5.00 miles of second track; 4.30 miles of third track; 4.30 miles of fourth track; these distances being the total length.

Including 13.44 miles of third track and 13.88 miles of fourth track.

Including 11.29 miles of third track and 11.43 miles of fourth track.

Including .42 of a mile of third track and .42 of a mile of fourth track.

9 Including 10.79 miles of third track, 10.78 miles of fourth track, 9.68 miles of fifth track and 9.64 miles of sixth track.

⁶ Including 12.22 miles of third track and 11.79 miles of fourth track.

⁷ Including 4.53 miles of third track and 4.45 miles of fourth track.

* Including 2.74 miles of third track and 2.74 miles of fourth track.

• Including .91 of a mile of third track.

• Including .28 of a mile of third track.

- **Trackage rights.**

Description of Railroads Owned and Operated — Continued.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) (BRANCHES IN ITALICS.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACE.		4. — SUB TRACE.		5. — Total Length computed as Single Track.
	From	To	Total.	In Main- chusetta.	Total.	In Main- chusetta.	Total.	In Main- chusetta.	
NEW YORK, NEW HAVEN & HARTFORD — <i>Cons.</i> Boston & Providence, <i>Connection with Midland</i>	Boston,	Providence, R. I.,	41.89 ¹	38.70	68.91 ²	61.42 ³	70.13	52.67	180.93
<i>Dix.</i>	Readville,	Readville,	1.40	1.40	1.40	1.40	—	—	2.80
Dedham,	Dedham,	Dedham,	2.47	2.47	2.47	2.47	18.43	18.43	23.37
India Point,	India Point, R. I.,	India Point, R. I.,	8.05	3.49	6.89	3.84	7.60	.11	22.54
Stoughton,	Canton Jct.,	Stoughton,	4.05	4.05	4.05	4.05	3.33	3.33	11.43
<i>West Roxbury,</i>	Forest Hills Station,	Dedham,	5.37	5.37	5.37	5.37	4.48	4.48	15.22
Boston Terminal*	Boston Station,	Fort Point Channel,	.42	.42	1.26 ⁴	1.26 ⁴	—	—	1.68
Chatham,	Chatham,	Harwich,	7.07	7.07	—	—	1.00	1.00	8.07
Central New England,*	Hopewell Jct., N. Y.,	Poughkeepsie Jct., N. Y.,	12.00	—	—	—	—	—	12.00
Harlem River & Port Chester,	Poughkeepsie Jct., N. Y.,	Poughkeepsie, N. Y.,	1.80	—	—	—	—	—	1.80
Holyoke & Westfield,	Harlem River, N. Y.,	New Rochelle, N. Y.,	11.28	—	52.14 ⁵	—	91.99	—	155.41
New York & Harlem,*	Westfield,	Holyoke,	10.59	10.59	—	—	10.69	10.69	21.28
Norwich & Worcester,	Grand Central Terminal, N. Y.,	Woodlawn Jct., N. Y.,	11.91	—	36.00 ⁶	—	32.49	—	80.40
<i>Wye connection with P. & W. R.R. and N. & W. R.R.,</i>	Worcester,	Groton Jct., Ct.,	70.85	17.69	.72	.72	40.67	11.76	113.24
	Worcester,	Worcester,	.22	.22	.13	.13	—	—	.35
	Boston,	Newport, R. I.,	67.60	51.41	55.81 ⁷	55.81 ⁷	68.44	61.52	191.85
	Braintree Highlands,	Somerset Jct.,	26.31	26.31	27.29 ⁸	27.29 ⁸	24.04	24.04	97.04
	Middleborough,	Provincetown,	85.95	85.95	19.72	19.72	15.03	15.03	120.70
	Raynham,	Whittemton Jct.,	3.38	3.38	8.38	8.38	1.18	1.18	7.94
	Braintree,	Kingston,	32.31	32.31	17.84	17.84	9.89	9.89	60.04
	South Braintree,	Plymouth,	26.04	26.04	14.15	14.15	8.69	8.69	48.98
	Framingham,	Lovell,	26.12	26.12	4.36	4.36	13.21	13.21	43.69
Old Colony, ...	New Bedford,	Fitchburg,	91.25	91.25	69.44 ⁹	69.44 ⁹	75.77	75.77	236.46

Atleborough, Bridgewater, Brookton, Connection with Dorchester & Milon, Dorchester, Easton, Extension to Plymouth & Mid. R.R., Fairhaven, Fall River, Grosvenor, Hanover, Hyannis, Lancaster, Marlborough, Middleborough, Middleboro' & Taunton, Nantasket Beach, Prison, Shawmut, Sterling, Stoughton, Walpole & Dedham, Warren, Whitman Y., Wrentham,	Atleboro' Branch Jct., Whitman, Elmwood, Boston, Neponset, Mattfeld, Middleborough, Tremont, Fairhaven, Fall River, Atlantic, North Abington, Yarmouth, Lancaster Branch Jct., Marlborough Jct., Plymouth, Middleborough, Nantasket Jct., South Framingham, Harrison Square, Pratt's Jct., Stoughton Jct., Walpole Jct., Fall River, Atleborough Br. Jct., Walpole Jct.,	Atleborough, Bridgewater Iron Works, Westfield, Boston, Mattapan, Easton, Middleborough, Tremont, New Bedford, Braintree, Hanover, Hyannis, Lancaster Mills, Marlborough, Taunton Jct., Pemberton, Reformatory, Shawmut Jct., Sterling Jct., Stoughton, Norwood Jct., Warren, R. I., Whittenton, No. Atleborough,	8.60 6.12 .75 .43 3.29 7.56 .42 16.17 12.25 5.41 7.80 5.05 1.63 1.47 15.03 8.04 6.95 6.65 2.35 5.03 1.65 5.76 7.95 .98 11.88	8.60 6.12 .75 .43 3.29 7.56 .42 16.17 12.25 5.41 7.80 5.05 1.63 1.47 15.03 8.04 6.95 6.65 2.35 5.03 1.65 5.76 7.95 .98 11.88	3.45 1.27 - .24 1.75 1.00 - 1.49 4.25 3.01 3.17 2.88 .38 1.42 1.47 1.47 3.39 3.39 .56 .52 1.68 .61 5.25 1.27 - 3.95	12.05 7.39 .75 1.10 5.62 8.56 .42 16.66 16.50 8.42 10.97 7.93 2.01 2.89 15.98 9.61 17.22 1.21 6.23 6.61 3.91 11.01 13.60 98 16.83
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¹ Including only one-half the length of joint tracks between Providence station and Boston switch, so-called, viz.: 5.00 miles of first or single track; 5.00 miles of second track; 4.80 miles of third track; 4.80 miles of fourth track; these distances being the total length.

² Including 13.44 miles of third track and 13.58 miles of fourth track.

³ Including 11.39 miles of third track and 11.43 miles of fourth track.

⁴ Including 43 of a mile of third track and 43 of a mile of fourth track.

⁵ Including 10.79 miles of third track, 10.78 miles of fourth track, 9.68 miles of fifth track and 9.64 miles of sixth track.

⁶ Including 12.22 miles of third track and 11.79 miles of fourth track.

⁷ Including 4.53 miles of third track and 4.45 miles of fourth track.

⁸ Including 2.74 miles of third track and 2.74 miles of fourth track.

⁹ Including .91 of a mile of third track.

¹⁰ Including .38 of a mile of third track.

¹¹ Trackage rights.

Description of Railroads Owned and Operated — Concluded.

[illegible]

UNION FREIGHT, VERMONT & MASSACHUSETTS. (See <i>Boston & Maine</i> .)	Boston,	.	.	Boston,	.	.	2.30	2.30	.83	.83	1.34	1.34	4.47
WARE RIVER. (See <i>Boston & Albany — N. Y. Central & H. R., Lessee.</i>)		.	.		.	.	—	—	—	—	—	—	—
TOTALS,	.	.	.	.	.	.	5,003.90	2,207.45	2,118.62	1,192.66	3,282.91	1,709.82	10,405.43

¹ Including only one-half the length of joint tracks between Providence station and Boston switch, so-called, viz.: 5.00 miles of first or single track; 5.00 miles of second track; 4.30 miles of third track; 4.30 miles of fourth track; these distances being the total length.

² Including 2.18 miles of third track and 2.15 miles of fourth track.

³ Including .03 of a mile of third track.

NOTE. — The 2,118.62 miles of second track owned and operated, as given in the above totals, include 220.41 miles of third track, 153.95 miles of fourth track, 9.68 miles of fifth track and 9.64 miles of sixth track. The 1,192.66 miles of second track in *Massachusetts* include 103.00 miles of third track and 65.23 miles of fourth track.

TABULATED STATEMENTS FROM RETURNS OF RAILROAD CORPORATIONS.

OPERATING RAILROADS.	6.—ATLANTA- DUKE BRANCH.*	7.—BOSTON & ALBANY.†	8.—BOSTON & MAINE.	9.—BOSTON, RAYNES BRANCH & LYNN.‡	10.—CENTRAL VERMONT.§
ASSETS.					
Road and equipment, ...	\$153,703 75	-	\$83,944,740 56	\$2,084,512 99	-
Securities, ...	-	-	22,049,263 04	19,500 00	-
Other investments, ...	-	-	2,422,144 93	56,861 05	-
Working assets, ...	19,975 03	-	18,425,888 27	344,318 60	-
Accrued income not due, ...	-	-	612 54	-	-
Deferred debit items, ...	24 27	-	4,966,153 08	-	-
GRAND TOTAL, ...	173,703 05	-	131,808,802 42	2,505,192 64	-
LIABILITIES.					
Capital stock, common, ...	\$131,700 00	-	\$39,505,390 70	\$850,000 00	-
Capital stock, preferred, ...	-	-	3,149,800 00	-	-
Total capital stock, ...	131,700 00	-	42,655,190 70	850,000 00	-
Funded debt, ...	-	-	43,338,000 00	850,000 00	-
Working liabilities, ...	895 96	-	34,258,783 69	361,471 76	-
Accrued liabilities not due, ...	2,253 66	-	1,714,601 63	-	-
Deferred credit items, ...	6,352 38	-	1,993,692 33	-	-
Appropriated surplus, ...	-	-	1,346,913 94	371,934 51	-
Premiums on capital stock, ...	32,501 05	-	6,501,620 14	71,786 37	-
Profit and loss (balance), ...	173,703 05	-	131,808,802 42	2,505,192 64	-
GRAND TOTAL, ...	-	-	-	-	-
INCOME.					
Passenger revenue, ...	\$30,828 10	\$6,194,578 15	\$16,049,174 21	\$981,441 43	\$210,216 48
Excess baggage revenue, ...	-	43,866 16	115,645 43	-	1,709 22
Mail revenue, ...	-	387,433 17	447,392 06	-	16,590 58

Express revenue, ...	640,805 07	1,293,761 41	-	20,036 17
Milk revenue (on passenger trains), ...	18,601 29	436,340 36	-	4,295 54
Other passenger train revenue, ...	111,317 16	124,931 33 ¹	-	1,427 77
<i>Total passenger service train revenue,</i>	7,396,341 00	18,467,244 80	981,441 43	260,275 76
Freight revenue, ...	8,994,101 80	28,692,688 94	-	836,473 83
Switching and other transportation revenue, ...	295,514 31	541,436 96	-	13,491 55
<i>Total revenue from transportation,</i>	16,685,957 11	47,701,370 70	981,441 43	1,110,241 14
Other revenue from operations, ...	214,517 32	807,262 78	22,050 99	12,291 74
Joint facilities revenue, ...	56,893 01	4,873 87	-	-
<i>Total operating revenues,</i>	16,957,367 44	48,513,507 35	1,003,492 42	1,122,532 88
<i>Total other income,</i>	435 26	1,586,944 31	-	7,642 17
GROSS INCOME, ...	34,710 73	50,100,451 66	1,003,492 42	1,130,175 05
EXPENDITURES.				
Operating expenses, ...	\$14,948 35	\$38,101,424 62	\$879,609 55	\$968,283 89
Taxes, ...	3,565 26	2,025,628 78	23,406 69	52,334 59
Rents for lease of road, ...	-	5,312,700 28	-	203,952 50
Hire of equipment, ...	1,571 30	1,748,315 03	-	41,767 33
Joint facilities and other rents, ...	-	169,037 68	-	27,480 00
Interest on funded and other debts, ...	-	2,547,311 04	47,778 50	-
Other deductions from income, ...	-	146,337 41	-	-
Dividends paid, ...	10,536 00	-	51,000 00	-
GROSS EXPENDITURES, ...	30,620 91	50,050,754 84	1,001,794 74	1,293,818 31

* Operated by electricity.

† Operations of the New York Central & Hudson River, lessees. For financial statement of the Boston & Albany R.R. Co., see column 16.

‡ A narrow-gauge railroad.

§ Operating the New London Northern under lease.

! Includes \$98.75 parlor car revenue.

Tabulated Statements from Returns of Railroad Corporations — Continued.

OPERATING RAILROADS.	6. — ATTLEBOROUGH BRANCH — Conn.	7. — BOSTON & ALBANY — Conn.	8. — BOSTON & MAINE — Conn.	9. — BOSTON, REVERE BEACH & LYNN — Conn.	10. — CENTRAL VERMONT — Conn.
CONDENSED EXHIBIT FOR THE YEAR.					
Net operating revenue, ...	\$19,327 12	\$4,850,704 52	\$10,412,082 73	\$123,882 87	\$154,248 99
Net revenue from outside operations, ...	—	110,659 56	187,913 41	—	—
Income from other sources, ...	435 26	385,652 46	1,399,030 90	—	7,642 17
Total income above operating expenses, ...	19,762 38	5,347,016 54	11,999,027 04	123,882 87	161,891 16
Taxes, rents, interest and other deductions, ...	5,136 56	5,449,435 68	11,949,330 22	71,185 19	325,534 42
Net corporate income, ...	14,625 82	102,419 14d	49,696 82	52,697 68	163,643 26d
Amount of dividends declared, ...	10,536 00	—	—	51,000 00	—
Percentage of dividends declared, ...	8.0	—	—	6.0	—
Surplus for the year, ...	4,089 82	102,419 14d	49,696 82	1,697 68	163,643 26d
Surplus, June 30, 1912, ...	28,366 10	—	1,812,090 64	70,088 69	—
Additions during the year, ...	45 13	—	3,013 36	—	—
Deductions during the year, ...	—	—	1,879,096 46 ^a	—	—
TOTAL SURPLUS, JUNE 30, 1913, ...	32,501 05	—	14,295 64d	71,786 37	—
VOLUME OF TRAFFIC, ETC.					
Passengers carried, ...	618,004	12,165,487	49,918,103	19,811,930 ⁷	470,189
average length of journey, ...	3.72 miles.	27.95 miles.	18.11 miles.	4.82 miles.	19.41 miles.
Total passenger mileage, ...	2,298,975	340,022,611	904,059,166	95,621,327	9,129,378
Average receipts per mile for passengers, ...	1.341 cents.	1.822 cents.	1.775 cents.	1.027 cents.	2.303 cents.
Tons of freight hauled, ...	26,961	9,631,093	25,473,568	—	1,707,403
average length of haul, ...	2.75 miles.	116.05 miles.	106.32 miles.	—	38.93 miles.
Total freight mileage, ...	74,131	1,117,738,753	2,721,196,610	—	68,180,120
Average receipts per ton of freight per mile, ...	4.140 cents.	0.805 cents.	1.054 cents.	—	1.227 cents.
Passenger train miles, ...	97,596	4,285,387	12,211,748	936,079	306,438
Freight train miles, ...	2,679	3,637,546	9,098,716	—	346,835

Mixed train miles, ...	41,918	234,586	-	-	1,213
Special train miles, ...	3,178	100,815	-	-	654,486
Total revenue train miles, ...	7,968,029	21,645,865	936,079	936,079	136,752*
Non-revenue service train miles, ...	2,672,181	7,633,181	6,014	6,014	791,238
TOTAL REVENUE AND NON-REVENUE TRAIN MILES, ...	10,640,210	29,279,046	942,093	942,093	
EQUIPMENT.					
Number of locomotives, ...	375	1,243	23	23	15
of passenger and combination cars, ...	346	1,465	96	96	15
of dining, parlor and sleeping cars, ...	3	21	-	-	-
of baggage, express and postal cars, ...	83	384	-	-	5
of other passenger service cars, ...	11	160	-	-	-
of freight cars, ...	7,139	24,155	-	-	3
of officers and pay cars, ...	3	8*	1	1	-
of gravel and other cars, ...	562	1,369	27	27	17
MISCELLANEOUS.					
Whole number of stockholders, ...	6	8,107	208	208	123.50
Total miles of road operated, ...	392.86	2,301.90*	13.20	13.20	54.90
Number of employees, ...	3,72	787.46	13.20	13.20	871
	35	28,446	716	716	

- * Includes 2,302,508 revenue switching locomotive miles.
 † At rate of three per cent on common, and six per cent on preferred capital stock.
 ‡ Includes \$1,374,138 dividends paid from surplus.
 § Includes 7,029,661 revenue switching locomotive miles.
 ¶ Includes one air brake instruction car.
 * Includes 50.21 miles electric street railway.
 † Computed on the basis of five-cent tickets collected.
 ‡ Includes 128,889 revenue switching locomotive miles.
 § Deficit.

Tabulated Statements from Returns of Railroad Corporations — Continued.

OPERATING RAILROADS.		11. — CRAFTON & UPPON.	12. — HOOSAC TUNNEL & WIL- MINGTON.*	13. — NANTUCKET.*	14. — NEW YORK, NEW HAVEN & HARTFORD.	15. — UNION FREIGHT.
ASSETS.						
Road and equipment,	.	\$541,718 42	\$590,777 25	\$127,180 62	\$192,229,189 96	\$417,555 29
Securities,	.	—	—	—	39,678,601 34	—
Other investments,	.	—	—	—	133,150,853 47	—
Working assets,	.	16,491 56	93,030 59	1,711 62	106,594,527 67	32,417 96
Accrued income not due,	.	—	—	—	1,660,246 66	—
Deferred debit items,	.	730 25	—	—	17,091,639 58	—
Profit and loss (balance),	.	11,528 79	—	—	—	—
GRAND TOTAL,	.	570,469 02	633,807 84	128,892 24	490,405,058 68	449,973 25
LIABILITIES.						
Capital stock, common,	.	\$250,000 00	\$250,000 00	\$25,000 00	\$180,017,000 00	\$300,000 00
preferred,	.	—	—	—	—	—
<i>Total capital stock,</i>	.	250,000 00	250,000 00	25,000 00	180,017,000 00	300,000 00
Funded debt,	.	18,000 00	232,000 00	—	203,319,253 98	60,000 00
Working liabilities,	.	298,561 84	50,221 99	102,296 08	55,994,263 15	2,643 08
Accrued liabilities not due,	.	2,759 56	3,866 66	—	3,037,966 75	3,450 00
Deferred credit items,	.	—	—	—	20,308,687 80 ¹	32,453 95
Appropriated surplus,	.	1,147 62	—	—	528,442 26	—
Premiums on capital stock,	.	—	—	—	19,282,887 50	—
Profit and loss (balance),	.	—	147,719 19	1,596 16	7,916,557 24	51,426 22
GRAND TOTAL,	.	570,469 02	683,807 84	128,892 24	490,405,058 68	449,973 25
INCOME.						
Passenger revenue,	.	\$41,248 80	\$24,277 65	\$6,003 66	\$27,896,300 29	—
Excess baggage revenue,	.	—	108 74	—	143,918 53	—
Mail revenue,	.	1,084 29	1,256 00	—	643,864 23	—

Express revenue, ...	3,874 45	4,170 65	820 29	3,157,031 17	-
Milk revenue (on passenger trains), ...	-	-	-	103,561 61	-
Other passenger train revenue, ...	-	-	1,301 51	388,722 32	-
<i>Total passenger service train revenue,</i>	46,207 54	29,313 04	8,125 46	32,333,388 15	-
Freight revenue, ...	64,823 42	77,654 18	436 64	34,071,974 75	\$125,971 32
Switching and other transportation revenue, ...	-	-	705 83	339,776 75	-
<i>Total revenue from transportation,</i>	111,030 96	107,467 22	9,267 93	66,745,139 65	125,971 32
Other revenue from operations, ...	3,212 24	6,308 07	-	1,352,550 68	2,377 00
Joint facilities revenue, ...	-	-	-	515,312 75	-
<i>Total operating revenues,</i>	114,243 20	113,775 29	9,267 93	68,613,503 08	128,348 32
<i>Total other income,</i>	-	-	-	10,703,231 98	569 56
GROSS INCOME, ...	114,243 20	113,775 29	9,267 93	79,322,735 06	128,917 88
EXPENDITURES.					
Operating expenses, ...	\$92,883 34	\$80,493 37	\$7,690 53	\$47,227,338 97	\$85,881 55
Taxes, ...	1,237 87	2,681 44	33 08	3,714,755 98	6,532 29
Rents for lease of road, ...	-	-	-	4,545,793 58	-
Hire of equipment, ...	-	-	-	-	1,421 45
Joint facilities and other rents, ...	-	-	-	2,391,143 05	5,000 00
Interest on funded and other debts, ...	18,065 35	11,650 00	366 54	11,029,129 09	2,400 00
Other deductions from income, ...	1,147 62	1,083 42	-	1,492,336 67	7,000 00
Dividends paid, ...	-	-	-	13,486,563 00	20,090 00
GROSS EXPENDITURES, ...	113,334 18	95,908 23	8,090 15	83,887,060 34	128,325 29

* A narrow-gauge railroad.

† Includes \$2,610,000 liability under contract with New York Central for half interest in equipment of B. & A. equipment trust of 1912, and \$9,389,683.13 for "equipment and personal property leased."

‡ Real estate mortgage.

Tabulated Statements from Returns of Railroad Corporations — Continued.

OPERATING RAILROADS.	11. — GRAFTON & UPPER — Con.	12. — HOOSAC TUNNEL & WIL- MINGTON — Con.	13. — NANTUCKET — Con.	14. — NEW YORK, NEW HAVEN & HARTFORD — Con.	15. — UNION FREIGHT — Con.
CONDENSED EXHIBIT FOR THE YEAR.					
Net operating revenue, ...	\$21,359 86	\$33,281 92	\$1,577 40	\$21,386 164 11	\$42,466 77
Net revenue from outside operations, ...	—	—	—	645,447 20	—
Income from other sources, ...	—	—	—	10,063,784 78	569 56
Total income above operating expenses, ...	21,359 86	33,281 92	1,577 40	32,095,396 09	43,036 33
Taxes, rents, interest and other deductions, ...	20,450 84	15,414 86	399 62	23,173,158 37	22,353 74
Net corporate income, ...	909 02	17,867 06	1,177 78	8,922,237 72	20,682 59
Amount of dividends declared, ...	—	—	—	13,486,563 00	20,090 00
Percentage of dividends declared, ...	—	—	—	7.51	7.01
Surplus for the year, ...	909 02	17,867 06	1,177 78	4,564,325 28d	592 59
Surplus, June 30, 1912, ...	50,496 44	129,851 13	128 68	12,575,471 00	50,833 63
Additions during the year, ...	—	—	289 70	30,151 87	—
Deductions during the year, ...	62,934 25	—	—	124,740 35	—
TOTAL SURPLUS, JUNE 30, 1913, ...	11,528 79d	147,719 19	1,596 16	7,916,557 24	51,426 22
VOLUME OF TRAFFIC, ETC.					
Passengers carried, ...	412,978	48,045	20,225	86,813,807	—
average length of journey, ...	8.00 miles.	13.47 miles.	9.12 miles.	18.50 miles.	—
Total passenger mileage, ...	3,303,824	647,058	184,452	1,605,902,772	—
Average receipts per mile for passengers, ...	1.249 cents.	3.752 cents.	3.254 cents.	1.737 cents.	—
Tons of freight hauled, ...	97,583	70,027	—	26,286,327	456,090
average length of haul, ...	8.00 miles.	15.63 miles.	—	96.43 miles.	1.375 miles.
Total freight mileage, ...	780,664	1,094,522	—	2,532,746,840	627,123
Average receipts per ton of freight per mile, ...	8.304 cents.	7.095 cents.	—	1.345 cents.	20.087 cents.
Passenger train miles, ...	186,404 1	31,478	10,878	16,753,623	—
Freight train miles, ...	11,247 2	8,632	—	8,515,809	16,079

Mixed train miles, ...	-	6,276	-	189,282	-
Special train miles, ...	-	-	-	64,350	-
Total revenue train miles, ...	197,741	46,386	10,878	25,523,064	16,079
Non-revenue service train miles, ...	-	351	-	6,679,898*	-
TOTAL REVENUE AND NON-REVENUE TRAIN MILES, ...	197,741	46,737	10,878	32,202,962	16,079
EQUIPMENT.					
Number of locomotives, ...	2	6	1	1,349	5
of passenger and combination cars, ...	-	5	3	1,800	-
of dining, parlor and sleeping cars, ...	-	-	-	20	-
of baggage, express and postal cars, ...	-	-	-	317	-
of other passenger service cars, ...	-	2	-	224	-
of freight cars, ...	5	116	1	36,185	-
of officers and pay cars, ...	-	-	-	16	-
of gravel and other cars, ...	4	1	-	1,205	-
MISCELLANEOUS.					
Whole number of stockholders, ...	12	16	3	22,642	3
Total miles of road operated, ...	18.10	25.00	9.12	2,112.55	2.30
operated in Massachusetts, ...	18.10	8.22	9.12	972.78	2.30
Number of employees, ...	29	83	20	34,484	53

* Electric cars.

* Steam trains.

* Passenger service performed with electric cars furnished by the Milford & Uxbridge Street Railway Company.

* On varying amounts of capital stock.

* Including 5,889,078 revenue switching locomotive miles.

* Not including dividend on \$13,000 capital stock held in treasury.
Deficit.

Tabulated Statements from Returns of Railroad Corporations — Continued.

OPERATING RAILROADS.	11. — GRAFTON & UPPON — Con.	12. — HOOSAC TUNNEL & WIL- MINGTON — Con.	13. — NANTUCKET — Con.	14. — NEW YORK, NEW HAVEN & HARTFORD — Con.	15. — UNION FREIGHT — Con.
CONDENSED EXHIBIT FOR THE YEAR.					
Net operating revenue, ...	\$21,359 86	\$33,281 92	\$1,577 40	\$21,386,164 11	\$42,466 77
Net revenue from outside operations, ...	—	—	—	645,447 20	—
Income from other sources, ...	—	—	—	10,063,784 78	569 56
<i>Total income above operating expenses,</i>	21,359 86	33,281 92	1,577 40	32,095,396 09	43,036 33
Taxes, rents, interest and other deductions, ...	20,450 84	15,414 86	399 62	23,173,158 37	22,353 74
Net corporate income, ...	909 02	17,867 06	1,177 78	8,922,237 72	20,682 59
Amount of dividends declared, ...	—	—	—	13,486,563 00	20,090 00
Percentage of dividends declared, ...	—	—	—	7.54	7.0*
<i>Surplus for the year,</i>	909 02	17,867 06	1,177 78	4,564,325 28d	592 59
Surplus, June 30, 1912, ...	50,496 44	129,851 13	128 68	12,575,471 00	50,833 63
Additions during the year, ...	—	—	289 70	30,151 87	—
Deductions during the year, ...	62,934 25	—	—	124,740 35	—
<i>TOTAL SURPLUS, JUNE 30, 1913,</i>	11,528 79d	147,719 19	1,596 16	7,916,557 24	51,426 22
VOLUME OF TRAFFIC, ETC.					
Passengers carried, ...	412,978	48,045	20,225	86,813,807	—
average length of journey, ...	8.00 miles.	13.47 miles.	9.12 miles.	18.50 miles.	—
<i>Total passenger mileage,</i>	3,303,824	647,068	184,452	1,606,902,772	—
Average receipts per mile for passengers, ...	1.249 cents.	3.752 cents.	3.254 cents.	1.737 cents.	—
Tons of freight hauled, ...	97,583	70,027	—	26,286,327	456,090
average length of haul, ...	8.00 miles.	15.63 miles.	—	96.43 miles.	1.375 miles.
<i>Total freight mileage,</i>	780,664	1,094,522	—	2,532,746,840	627,123
Average receipts per ton of freight per mile, ...	8.304 cents.	7.095 cents.	—	1.345 cents.	20.087 cents.
Passenger train miles, ...	186,494 1	31,478	10,878	16,753,623	—
Freight train miles, ...	11,247 2	8,632	—	8,515,809	16,079

Mixed train miles, ...	-	6,276	-	189,282	-
Special train miles, ...	-	-	-	64,350	-
<i>Total revenue train miles,</i>	197,741	46,386	10,878	25,523,064	16,079
Non-revenue service train miles, ...	-	351	-	6,679,898*	-
TOTAL REVENUE AND NON-REVENUE TRAIN MILES, ...	197,741	46,737	10,878	32,202,962	16,079
EQUIPMENT.					
Number of locomotives, ...	2	6	1	1,349	5
of passenger and combination cars, ...	-	5	3	1,800	-
of dining, parlor and sleeping cars, ...	-	-	-	20	-
of baggage, express and postal cars, ...	-	-	-	317	-
of other passenger service cars, ...	-	2	-	224	-
of freight cars, ...	5	116	1	36,185	-
of officers and pay cars, ...	-	-	-	16	-
of gravel and other cars, ...	4	1	-	1,205	-
MISCELLANEOUS.					
Whole number of stockholders, ...	12	16	3	22,642	3
Total miles of road operated, ...	18.10	25.00	9.12	2,112.55	2.30
operated in Massachusetts, ...	18.10	8.22	9.12	972.78	2.30
Number of employees, ...	29	83	20	34,484	53

* Electric cars.

† Steam trains.

‡ Passenger service performed with electric cars furnished by the Milford & Uxbridge Street Railway Company.

§ On varying amounts of capital stock.

|| Including 5,889,078 revenue switching locomotive miles.

¶ Not including dividend on \$13,000 capital stock held in treasury.

* Deficit.

Tabulated Statements from Returns of Railroad Corporations — Continued.

LEASED RAILROADS.*	16. — BOSTON & ALBANY. ¹	17. — BOSTON & LOWELL. ²	18. — BOSTON & PROVIDENCE. ³	19. — CHATHAM. ⁴	20. — CHESTER & BUCKLEY. ⁵
ASSETS.					
Road and equipment,	\$47,570,134 32	\$15,541,578 77	\$5,673,198 59	\$99,491 13	\$137,159 73
Securities,	—	362,445 50	—	—	—
Other investments,	5,564,318 75	—	419,703 36	—	—
Working assets,	2,554,860 41	1,190,938 14	305,889 58	3,282 09	—
Accrued income not due,	160,027 50	—	—	—	—
Deferred debit items,	287,510 53	557,168 91	—	—	—
Profit and loss (balance), June 30, 1913,	—	—	—	—	63,491 42
GRAND TOTAL,	56,136,851 51	17,652,131 32	6,398,791 53	101,873 22	200,651 15
LIABILITIES.					
Capital Stock,	\$25,000,000 00	\$7,679,400 00	\$4,000,000 00	\$68,200 00	\$50,000 00
Funded debt,	22,985,000 00	6,540,000 00	2,170,000 00	—	50,000 00
Working liabilities,	104,682 75	417,151 42	—	—	100,651 15
Accrued liabilities not due,	160,027 50	53,681 67	147,282 00	—	—
Deferred credit items,	480,314 51	44,057 07	—	—	—
Premiums on capital stock,	—	1,387,744 02	—	—	—
Appropriated surplus,	5,862,459 05	18,278 77	—	—	—
Profit and loss (balance), June 30, 1913,	1,543,867 70	1,511,918 37	81,509 53	33,673 22	—
GRAND TOTAL,	56,136,851 51	17,652,131 32	6,398,791 53	101,873 22	200,651 15
INCOME, EXPENDITURES, ETC.					
Total income from all sources,	\$3,195,658 31	\$885,508 72	\$494,101 70	\$3,610 00	—
Expenses,	30,048 31	7,405 75	6,863 55	121 43	\$3,196 51
Taxes, rents, etc.,	—	3,832 15	—	—	—
Interest on funded and other debts,	900,110 00	254,438 33	86,800 00	—	4,192 26
Net corporate income,	2,187,500 00	619,832 49	400,438 15	3,488 57	7,388 77d
Dividends declared,	2,187,500 00	614,352 00	399,600 00 ⁴	3,410 00	—
Percentage of dividends declared,	8.75	8.0	10.0	5.0	—
Surplus for the year,	—	5,480 49	838 15	78 57	7,388 77d

* Leased to and operated by † New York Central & Hudson River, ‡ Boston & Maine, § New York, New Haven & Hartford.
† Operated by Boston & Albany (New York Central & Hudson River, lessee),
‡ Not including 40 shares in treasury.
§ Deficit.

Tabulated Statements from Returns of Railroad Corporations — Continued.

LEASED RAILROADS.*	21. — CONNECTICUT RIVER. ¹	22. — FITCHBURG. ¹	23. — HAMDEN. [†]	24. — HOLYOKE & WESTFIELD. ²	25. — HORN POND BRANCH. [‡]
ASSETS.					
Road and equipment, ...	\$6,460,900 57	\$51,258,233 31	\$1,629,648 74	\$460,000 00	\$15,238 42
Securities, ...	1,110,407 50	—	—	4,200 00	—
Other investments, ...	—	8,262 64	—	—	—
Working assets, ...	186,675 70	2,625,370 24	31,601 26	3,377 25	—
Accrued income not due, ...	—	284,657 90	—	—	—
Deferred debit items, ...	7,263 45	896,023 51	2,338,750 00	—	—
Profit and loss balance, June 30, 1913, ...	43,022 69	—	—	—	—
GRAND TOTAL, ...	7,808,269 91	55,072,547 60	4,000,000 00	467,577 25	15,238 42
LIABILITIES.					
Capital stock, ...	\$3,233,300 00	\$25,860,000 00 ²	\$1,400,000 00	\$260,000 00	\$2,000 00
Funded debt, ...	2,259,000 00	24,567,000 00	—	200,000 00	—
Working liabilities, ...	2,283,148 78	1,556,526 37	2,600,000 [†] 00	—	—
Accrued liabilities not due, ...	21,388 90	284,657 90	—	—	—
Deferred credit items, ...	—	224,989 86	—	—	—
Premiums on capital stock, ...	—	444,637 21	—	—	—
Appropriated surplus, ...	11,432 23	107,694 10	—	—	—
Profit and loss balance, June 30, 1913, ...	—	2,027,042 16	—	7,577 25	13,238 46
GRAND TOTAL, ...	7,808,269 91	55,072,547 60	4,000,000 00	467,577 25	15,238 46
INCOME, EXPENDITURES, ETC.					
Total income from all sources, ...	\$415,651 21	\$2,023,146 03	—	\$46,116 61	—
Expenses, ...	7,889 15	9,767 18	—	898 85	—
Taxes, rents, etc., ...	—	50,303 59	—	—	—
Interest on funded and other debts, ...	84,065 00	1,001,995 00	—	8,330 00	—
<i>Net corporate income,</i>	323,697 06	961,080 26	—	36,887 76	—
Dividends declared, ...	323,330 00	943,000 00	—	36,400 00	—
Percentage of dividends declared, ...	10.0	5.0 ⁴	—	14.0	—
<i>Surplus for the year,</i>	367 06	18,080 26	—	487 76	—

* Leased to and operated by ¹ Boston & Maine, ² New York, New Haven & Hartford.

† Railroad under construction.

‡ Used for transportation of ice; no income reported. Operated by Boston & Maine.

² Common, \$7,000,000; preferred, \$18,860,000.

⁴ On preferred stock.

Tabulated Statements from Returns of Railroad Corporations — Continued.

LEASED RAILROADS.*	26. — LOWELL & ANDOVER. ¹	27. — NASHUA & ACTON. ¹	28. — NASHUA & LOWELL. ¹	29. — NEW LONDON NORTHERN. ²	30. — NORTH BROOKFIELD. ³
ASSETS.					
Road and equipment,	\$767,050 24	\$300,000 00	\$910,649 65	\$3,180,556 89	\$100,000 00
Securities,	—	—	50,070 00	150,000 00	—
Other investments,	—	—	—	137,493 02	—
Working assets,	3,506 42	—	1,238 93	96,580 45	816 31
Deferred debit items,	—	—	—	22,815 00	—
GRAND TOTAL,	770,556 66	300,000 00	961,958 58	3,587,445 36	100,816 31
LIABILITIES.					
Capital stock,	\$625,000 00	\$300,000 00	\$800,000 00	\$1,500,000 00	\$100,000 00
Funded debt,	—	—	—	1,500,000 00	—
Working liabilities,	—	—	126 00	68,847 14	—
Accrued liabilities not due,	—	—	—	250 00	—
Appropriated surplus,	—	—	1,164 63	—	—
Profit and loss (balance), June 30, 1913,	145,556 66	—	160,667 95 ⁴	518,348 22	816 31
GRAND TOTAL,	770,556 66	300,000 00	961,958 58	3,587,445 36	100,816 31
INCOME, EXPENDITURES, ETC.					
Total income from all sources,	\$52,545 02	—	\$75,792 88	\$218,266 22	\$3,016 67
Expenses,	319 59	—	864 31	5,214 97	34 84
Taxes, rents, etc.,	13 87	—	693 53	845 00	665 92
Interest on funded and other debts,	—	—	—	63,000 00	—
Net corporate income,	52,211 56	—	74,235 04	149,206 25	2,315 91
Dividends declared,	50,000 00	—	76,000 00	142,500 00	2,250 00
Percentage of dividends declared,	8.0	—	9.5	9.5	2.25
Surplus for the year,	2,211 56	—	1,764 96 ^d	6,706 25	65 91

* Leased to and operated by ¹ Boston & Maine, ² Central Vermont, ³ Boston & Albany (New York Central & Hudson River, lessee).

⁴ Debiting \$118.76.
^d Deficit.

Tabulated Statements from Returns of Railroad Corporations — Continued.

LEASED RAILROADS.*	31. — NORWICH & WORCESTER. ¹	32. — OLD COLONY. ¹	33. — PITTSFIELD & NORTH ADAMS. ²	34. — PROVIDENCE, WENSTER & SPRINGFIELD. ³	35. — PROVIDENCE & WORCESTER. ¹
ASSETS.					
Road and equipment,	\$5,089,948 87	\$39,486,062 26	\$450,000 00	\$250,713 06	\$5,105,137 40
Securities,	—	147 50	—	—	—
Other investments,	3,107 08	3,780,631 42	—	—	50,980 26
Working assets,	781,535 85	523,138 07	—	6,394 80	80,747 97
Deferred debit items,	180 00	2,800,000 00	—	63 40	5,236,865 63
GRAND TOTAL,	5,874,771 80	46,589,979 25	450,000 00	257,171 06	
LIABILITIES.					
Capital stock,	\$3,006,600 00 ²	\$22,295,125 00 ²	\$450,000 00	\$160,000 00	\$3,500,000 00
Funded debt,	1,200,000 00	13,598,000 00	—	—	1,500,000 00
Working liabilities,	63,603 00	932,147 18	—	18,493 53	—
Accrued liabilities not due,	16,000 00	68,660 00	—	—	—
Deferred credit items,	475,512 04 ²	199,528 00	—	—	—
Premiums on capital stock,	—	6,836,173 84	—	—	—
Profit and loss (balance), June 30, 1913,	1,113,056 76	2,660,345 15	—	78,677 53	236,865 63
GRAND TOTAL,	5,874,771 80	46,589,979 25	450,000 00	257,171 06	5,236,865 63
INCOME, EXPENDITURES, ETC.					
Total income from all sources,	\$291,643 74	\$2,085,624 25	\$22,500 00	\$11,293 61	\$417,681 99
Expenses,	3,204 26	7,774 25	—	499 42	6,107 63
Taxes, rents, etc.,	—	—	—	1,026 14	—
Interest on funded and other debts,	48,000 00	539,320 00	—	1,053 33	60,000 00
Net corporate income,	240,439 48	1,538,530 00	22,500 00	8,714 72	351,574 36
Dividends declared,	240,000 00	1,538,530 00	22,500 00	—	350,000 00
Percentage of dividends declared,	8.0	7.0 ²	5.0	—	10.0
Surplus for the year,	439 48	—	—	8,714 72	1,574 36

* Leased to and operated by ¹ New York, New Haven & Hartford, ² Boston & Albany (New York Central & Hudson River, lessees).

† Operated by Boston & Albany (New York Central & Hudson River, lessees), under an agreement.

* Common, \$6,000; preferred, \$3,000,000.
 * Obligations for "advances received for construction, etc."
 * Including "common stock" liability of \$1,125.
 * On varying amounts of capital stock.

Tabulated Statements from Returns of Railroad Corporations — Concluded.

LEASED RAILROADS.*	36. — SOUTHERN NEW ENGLAND.†	37. — SPONT BROOK.‡	38. — VERMONT & MASSACHUSETTS.¹	39. — WAVER RIVER.²
ASSETS.				
Road and equipment,	\$1,203,543 98	\$299,509 98	\$6,994,576 62	\$1,115,163 82
Working assets,	1,579,844 96	1,885 14	9,993 50	-
Accrued income not due,	-	-	4,503 33	-
Profit and loss (balance), June 30, 1913,	-	21 29	-	-
GRAND TOTAL,	2,783,388 94	301,416 41	7,009,073 45	1,115,163 82
LIABILITIES.				
Capital stock,	\$1,000,000 00	\$300,000 00	\$3,193,000 00	\$750,000 00
Funded debt,	-	-	772,000 00	-
Working liabilities,	1,612,188 94	-	9,993 50	365,163 82
Accrued liabilities not due,	-	-	4,503 33	-
Deferred credit items,	171,200 00	-	-	-
Appropriated surplus,	-	1,416 41	485,475 23	-
Profit and loss (balance), June 30, 1913,	-	-	2,544,101 39	-
GRAND TOTAL,	2,783,388 94	301,416 41	7,009,073 45	1,115,163 82
INCOME, EXPENDITURES, ETC.				
Total income from all sources,	-	\$22,890 16	\$358,996 65	\$52,500 00
Expenses,	-	375 85	3,312 46	-
Taxes, rents, etc.,	-	1,390 16	137,084 19	-
Interest on funded and other debts,	-	-	27,020 00	-
Net corporate income,	-	21,124 15	191,880 00	52,500 00
Dividends declared,	-	21,000 00	191,580 00	52,500 00
Percentage of dividends declared,	-	7.0	6.0	7.0
Surplus for the year,	-	124 15	-	-

* Leased to and operated by † Boston & Maine, ‡ Boston & Albany (New York Central & Hudson River, leases).

† Railroad under construction.

COMPARATIVE AND SUMMARY STATEMENTS

COMPILED FROM

Returns of Railroad Corporations.

COMPARISON OF RETURNS FOR THE YEARS 1912 AND 1913.

MILEAGE, ASSETS, ETC.	1912.	1913.	Increase.	Decrease.
Description of Road Owned.	Miles.	Miles.	Miles.	Miles.
Length of road and branches, in Massachusetts,	3,983.96 ¹ 2,111.04	3,998.84 ¹ 2,110.80	9.88 -	- .54
Length of second track, in Massachusetts,	1,822.01 1,065.18	1,848.18 1,075.01	26.17 9.83	- -
Length of side track, in Massachusetts,	2,764.10 ² 1,675.12	2,822.72 ² 1,707.96	58.62 32.14	- -
Total length as single track, in Massachusetts,	8,570.07 ³ 4,851.34	8,664.44 ³ 4,892.77	94.37 41.43	- -
Assets.				
Road and equipment, ...	\$459,600,327 17	\$475,087,875 23	\$16,087,548 06	-
Securities, ...	164,211,618 35	63,424,634 88	-	\$100,786,983 47
Other investments, ...	91,021,678 14	145,543,375 72	54,521,797 58	-
Working assets, ...	95,274,742 87	138,485,370 46	40,210,627 59	-
Accrued income not due, ...	1,426,524 48	3,110,047 98	683,522 45	-
Deferred debit items, ...	22,821,416 41	29,049,069 95	6,227,653 54	-
Profit and loss (balance), ...	99,637 84	118,064 19	18,426 35	-
Grand Total, ...	\$834,455,845 26	\$851,418,438 36	\$16,962,593 10	-
Liabilities.				
Capital stock, common, ...	\$303,829,015 70	\$305,001,715 70	\$1,172,700 00	-
preferred, ...	25,000,800 00	25,000,800 00	-	-
Total capital stock, ...	\$328,829,815 70	\$330,011,515 70	\$1,172,700 00	-
Funded debt, ...	327,282,200 00	326,133,450 00	-	\$1,098,850 00
Obligations for advances for construction, ...	1,572,315 08	950,316 02	-	622,499 01
Working liabilities, ...	71,727,052 56	101,201,861 13	29,474,808 57	-
Accrued liabilities not due, ...	14,613,078 25	5,531,349 55	-	9,082,328 70
Deferred credit items, ...	13,809,992 20	22,969,237 07	9,149,234 87	-
Premiums on capital stock, ...	47,181,669 71	34,463,062 71	-	12,728,607 00
Premiums on bonds, ...	473,265 76	502,548 91	29,283 15	-
Sinking and reserve funds, ...	2,128,037 54	7,945,733 92	5,817,746 38	-
Additions to property through income, ...	653,060 27	790,574 83	137,514 56	-
Profit and loss (balance), ...	26,175,158 24	20,898,748 52	-	5,276,409 72
Grand Total, ...	\$834,455,845 26	\$851,418,438 36	\$16,962,593 10	-
Income.				
Revenues from freight, ...	\$68,266,491 63	\$72,867,193 82	\$4,600,702 19	-
passengers, ...	49,613,282 90	51,424,068 77	1,820,785 87	-
excess baggage, ...	308,681 39	304,988 08	1,306 69	-
mail, ...	1,487,085 38	1,497,610 33	10,524 95	-
express, ...	4,831,743 60	5,126,499 21	294,755 53	-
milk (on passenger trains), ...	497,588 93	562,798 80	65,109 87	-
other passenger trains, ...	408,670 24	627,700 09	219,029 85	-
Total passenger service train revenue, ...	57,142,152 53	59,553,665 28	2,411,512 75	-
Revenue from switching and miscellaneous, ...	1,034,162 60	1,191,219 45	157,056 85	-
Total revenue from transportation, ...	126,442,806 76	133,612,078 55	7,169,271 79	-
Revenue from operations other than transportation, ...	2,160,984 88	2,420,655 20	259,670 32	-
joint facilities, ...	470,519 21	577,579 63	107,060 42	-
Total operating revenues, ...	129,074,310 85	136,610,313 38	7,536,002 53	-
Net revenue from outside operations, ...	1,633,041 26	944,020 17	-	\$689,021 09
Rents from lease of road, ...	10,239,581 18	10,436,978 13	197,396 95	-
Other income, ...	11,858,275 82	12,096,680 77	238,404 95	-
Gross Corporate Income,†	\$152,805,209 11	\$160,087,992 45	\$7,282,783 34	-

* Includes third and fourth main track.

† Operating expenses and taxes not deducted from income but are included in the expenditures.

1 Includes 18.10 miles of electric street railway owned by the Boston & Maine.

2 Includes 1.14 miles of electric street railway owned by the Boston & Maine.

3 Includes 19.24 miles of electric street railway owned by the Boston & Maine.

COMPARISON OF RETURNS, ETC. — Concluded.

EXPENDITURES, ETC.	1912.	1913.	Increase.	Decrease.
Expenditures.				
Operating expenses, ...	\$90,131,968 78	\$99,565,217 09	\$9,433,248 31	-
Taxes, ...	6,862,051 50	6,674,408 34	-	\$187,643 16
Rents for lease of road, ...	12,887,482 43	13,139,746 12	252,263 69	-
Hire of equipment, ...	2,114,946 79	3,138,916 39	1,023,969 60	-
Joint facilities and other rents, ...	2,585,916 30	2,801,054 99	215,138 69	-
Interest on funded and other debts, ...	15,646,722 99	16,735,173 89	1,088,450 90	-
Other deductions from income, ...	445,700 47	1,698,649 97	1,252,949 50	-
Total charges on income, ...	40,542,830 48	44,187,949 70	3,645,129 22	-
Dividends declared, ...	23,298,074 00	22,136,779 00	-	1,161,295 00
Appropriations for additions, betterments and reserves, ...	133,112 62	290,526 58	157,413 96	-
Gross Expenditures, ...	\$154,105,975 88	\$166,180,472 37	\$12,074,496 49	-
Condensed Exhibit for the Year.				
Total operating revenues, ...	\$129,074,310 85	\$136,610,313 38	\$7,536,002 53	-
Operating expenses, ...	90,131,968 78	99,565,217 09	9,433,248 31	-
Net operating revenue, ...	38,942,342 07	37,045,096 29	-	\$1,897,245 78
Net revenue from outside operations, ...	1,633,041 26	944,020 17	-	689,021 09
Rents from lease of road, ...	10,239,581 18	10,436,978 18	197,396 95	-
Other income, ...	11,858,275 82	12,066,080 77	238,404 95	-
Total income above operating expenses, ...	62,673,240 33	60,522,775 36	-	2,150,464 97
Taxes, rents, interest and other charges, ...	40,542,830 48	44,187,949 70	3,645,129 22	-
Net corporate income, ...	22,130,419 85	16,334,825 66	-	5,795,594 19
Amount of dividends declared, ...	23,298,074 00	22,136,779 00	-	1,161,295 00
Appropriations for additions, betterments and reserves, ...	133,112 62	290,526 58	157,413 96	-
Surplus for the year, ...	1,800,766 77 ^a	6,092,479 92 ^d	4,791,713 15	-
Percentage of dividends earned, ...	6.78	4.94	-	1.79
of dividends declared, ...	7.08	6.70	-	.79
Volume of Traffic.				
Miles run by freight trains, ...	20,728,250	21,637,543	909,293	-
by passenger trains, ...	33,947,537	34,819,721	872,184	-
by mixed trains, ...	458,698	472,062	13,364	-
by special trains, ...	155,975	170,712	14,737	-
Total revenue train mileage, ...	55,290,460	57,100,038	1,809,578	-
Miles run by non-revenue service trains, ...	16,074,358	17,128,377	1,054,019	-
Total train mileage, ...	71,364,818	74,228,415	2,863,597	-
Total passengers carried, ...	166,006,254	170,278,768	4,272,514	-
passenger mileage, ...	2,871,949,251	2,961,169,568	89,220,312	-
Average receipts per passenger per mile (cents), ...	1.73	2.01	.28	-
Total tons of freight hauled, ...	59,288,347	63,739,052	4,440,705	-
freight mileage, ...	5,843,933,729	6,442,438,763	598,505,034	-
Average receipts per ton of freight per mile (cents), ...	1.17	1.13	-	.04
Equipment, etc.				
Locomotives, ...	2,830	3,030	190	-
Passenger cars, ...	4,449	4,172	-	277
Baggage, express and postal cars, ...	805	789	-	16
Freight cars, ...	66,134	67,604	1,470	-
All other cars, ...	3,049	3,213	164	-
Total amount of capital stock held in Massachusetts, ...	\$184,772,400 00	\$186,785,900 00	\$2,013,500 00	-
Total number of stockholders, ...	58,399	58,898	499	-
in Massachusetts, ...	40,144	40,759	615	-
Number of employees, ...	70,862	73,661	2,799	-
Total miles of road operated, ...	4,968.60 ¹	5,003.90 ²	35.30	-
in Massachusetts, ...	2,185.82	2,207.45	21.63	-
Total miles of track operated, ...	10,242.43 ³	10,405.43 ⁴	163.00	-
in Massachusetts, ...	5,023.35	5,109.93	86.58	-

¹ Includes 46.80 miles of electric street railway operated by the Boston & Maine.² Includes 49.96 miles of electric street railway operated by the Boston & Maine.³ Includes 50.21 miles of electric street railway operated by the Boston & Maine.⁴ Includes 53.46 miles of electric street railway operated by the Boston & Maine.^d Deficit.

SUMMARY OF RETURNS FOR THE YEARS 1909 TO 1913 INCLUSIVE.

MILEAGE, ASSETS, LIABILITIES, ETC.		1909.	1910.	1911.	1912.	1913.
Railroad Mileage Owned.						
Miles of main and branch line in Massachusetts,	.	.	.	.	.	.
of second track,*	.	.	.	.	.	.
of side track,	.	.	.	.	.	.
Total track in Massachusetts,	.	.	.	.	.	.
2,110.43		2,110.16		2,111.22	2,111.04	2,110.50
1,018.48		1,019.98		1,041.77	1,065.18	1,075.01
1,576.90		1,639.39		1,663.32	1,675.12	1,670.26
4,705.81		4,769.53		4,816.31	4,851.34	4,862.77
Railroad Mileage Operated.						
Miles of main and branch line,	.	.	.	.	.	.
of side track,†	.	.	.	.	.	.
Total track operated,	.	.	.	.	.	.
4,918.51		4,917.84		4,917.65	4,968.60	5,003.90
1,890.95		1,909.48		1,940.00	2,067.83	2,118.62
3,053.34		3,149.03		3,233.40	3,206.00	3,283.91
9,876.80		9,976.35		10,090.05	10,242.43	10,405.43
Assets.						
Road and equipment,	.	.	.	.	.	.
Securities,	.	.	.	.	.	.
Other investments,	.	.	.	.	.	.
Working assets,	.	.	.	.	.	.
Accrued income not due,	.	.	.	.	.	.
Deferred debit items,	.	.	.	.	.	.
Grand Total,	.	.	.	.	.	.
\$458,537,653.13		\$434,559,353.97		\$454,838,659.78	\$459,600,327.17	\$475,687,875.23
68,437,246.07		161,898,121.82		154,249,278.78	164,311,618.35	63,624,684.88
58,067,242.53		71,487,734.24		80,634,751.78	101,031,578.14	145,543,375.72
66,737,311.85		83,185,338.73		106,013,154.29	95,374,742.87	135,482,370.46
1,660,371.15		1,374,658.15		1,385,947.62	1,436,524.48	2,110,047.93
22,470,878.87		21,036,698.42		21,605,830.21	22,821,416.41	29,040,069.95
713,978,963.50		773,441,893.83		818,767,632.66	834,356,207.42	851,300,374.17
Liabilities.						
Capital stock,	.	.	.	.	.	.
Funded debt,	.	.	.	.	.	.
Obligations for advances for construction,	.	.	.	.	.	.
Working liabilities,	.	.	.	.	.	.
Accrued liabilities,	.	.	.	.	.	.
Deferred credit items,	.	.	.	.	.	.
Premiums on capital stock,	.	.	.	.	.	.
Premiums on bonds,	.	.	.	.	.	.
Sinking and reserve funds,	.	.	.	.	.	.
Additions to property through income,	.	.	.	.	.	.
Profit and loss (balance),	.	.	.	.	.	.
Grand Total,	.	.	.	.	.	.
\$360,778,915.70		\$385,100,340.70		\$324,445,165.70	\$328,838,815.70	\$330,011,515.70
360,210,375.00		356,963,960.00		334,371,200.00	327,282,300.00	326,183,450.00
154,014.42		719,465.43		991,006.27	1,672,815.03	960,316.02
24,072,804.49		30,942,684.58		54,689,338.87	71,727,052.86	101,201,861.13
16,122,329.65		14,870,632.31		14,487,664.51	14,613,478.25	5,521,349.55
9,764,884.45		15,857,134.71		9,621,249.66	13,809,992.20	22,860,227.07
10,115,589.00		32,442,220.10		46,311,651.24	47,181,649.71	24,463,063.71
1,103,883.01		1,103,883.01		629,373.01	473,265.76	502,548.91
2,963,641.20		8,763,803.07		4,698,144.98	2,128,037.64	7,944,783.92
94,558.58		333,671.04		530,980.41	653,060.27	700,574.83
38,677,968.03		31,430,207.91		28,001,247.91	26,075,530.40	20,780,684.83
718,978,963.50		773,441,893.83		818,767,632.66	834,356,207.42	851,300,374.17

Condensed Exhibit for the Year.

Total operating revenue, ...	\$108,105,771 52	\$120,140,992 30	\$123,069,489 56	\$120,074,310 85	\$136,010,313 33
Operating expenses, ...	76,048,921 33	82,067,616 15	89,636,902 46	90,131,968 78	99,565,317 00
Net operating revenue, ...	33,056,850 19	33,073,476 15	34,432,587 10	38,942,342 07	37,045,006 29
Net revenue from outside operations, ...	1,358,145 19	1,445,143 19	1,536,425 84	1,633,041 26	944,020 17
Rent from lease of roads, ...	10,279,513 54	10,690,221 90	10,605,492 31	10,239,581 18	10,436,978 13
Other income, ...	9,190,050 13	10,090,770 97	10,435,812 57	11,888,275 53	12,096,680 77
Total income above operating expenses, ...	53,894,562 16	60,290,612 21	67,011,317 83	62,673,240 33	60,522,775 36
Taxes, rents, interest and other charges, ...	37,771,684 37	39,876,488 80	39,621,045 44	40,542,820 43	44,187,949 70
Amount of dividends declared, ...	16,112,967 79	20,423,143 41	17,390,273 38	22,180,419 58	16,334,325 66
Appropriations for additions, betterments and reserves, ...	16,994,680 63	18,996,657 00	21,790,406 45	23,298,074 00	22,136,779 00
Surplus for the year, ...	47,099 38	280,749 89	54,637 53	133,112 62	290,526 58
Percentage of dividends earned, ...	898,913 224	1,165,736 52	4,444,761 904	1,300,766 774	6,092,479 924
Stock held in Massachusetts, ...	6 73	7 16	5 36	7 73	6 70
Stock held in Massachusetts, ...	7 10	6 71	6 71	7 08	6 70
Total number of stockholders, ...	\$137,571,200 00	\$156,383,900 00	\$180,534,900 00	\$184,772,400 00	\$186,785,600 00
Number of employees June 30, ...	54,436	53,863	56,353	58,399	58,998
	38,454	38,640	39,067	40,144	40,759
	64,725	69,798	70,719	70,852	73,861
Volume of Traffic.					
Miles run by freight trains, ...	18,750,000	19,898,151	20,372,908	20,728,250	21,637,543
by passenger trains, ...	31,992,631	33,304,522	34,257,020	33,947,537	34,819,721
by mixed trains, ...	336,113	402,990	402,765	468,698	473,063
by special trains, ...	110,792	155,854	164,872	155,975	170,712
Total revenue train mileage, ...	51,189,586	53,751,317	55,197,565	55,290,460	57,100,038
Miles run by non-revenue service trains, ...	14,740,906	15,908,123	16,243,465	16,074,358	17,126,377
Total train mileage, ...	65,930,492	69,659,240	71,441,030	71,364,818	74,226,415
Passengers carried, ...	147,051,164	160,769,301	162,940,242	166,006,264	170,378,768
Average length of journey (miles), ...	17 39	17 23	17 24	17 30	17 39
Total passenger mileage, ...	2,556,994,990	2,771,121,457	2,808,985,698	2,871,940,261	2,961,169,563
Average fare per mile (cents), ...	1 64	1 65	1 72	1 73	2 01
Passengers to and from Boston, ...	64,233,488	70,465,056	71,396,676	72,915,066	75,081,019
Tons of freight hauled, ...	49,259,397	55,786,434	56,557,644	59,283,347	63,729,082
Average length of haul (miles), ...	97 51	97 41	97 85	98 57	101 09
Total freight mileage, ...	4,803,497,797	5,433,908,081	5,534,064,740	5,843,933,729	6,442,438,763
Average rate per ton mile (cents), ...	1 19	1 19	1 17	1 17	1 13
Equipment.					
Number of locomotives, ...	2,798	2,749	2,879	2,830	3,090
of passenger cars, ...	4,031	4,126	4,240	4,173	4,172
of freight cars, ...	749	770	753	805	789
of baggage, express and postal cars, ...	62,011	63,882	67,094	66,124	67,604
of all other cars, ...	2,673	3,101	3,318	3,049	3,213

* Includes third and fourth main track.

† Includes third, fourth, fifth and sixth main track.

‡ Deficit.

TABULATED STATEMENTS

COMPILED FROM THE

Returns of Street Railway Companies

FOR THE

YEAR ENDING JUNE 30, 1913.

TABULATED STATEMENTS FROM RETURNS OF STREET RAILWAY COMPANIES.

RAILWAY COMPANIES.							ASSETS JUNE 30, 1913.				
		1. — Cost of Railway.	2. — Cost of Equipment.	3. — Cost of Land, Buildings, etc.	4. — Cost of Other Permanent Investments.	5. — Cash and Current Assets.	6. — Miscel- laneous Assets.	7. — Gross Assets.			
1	Amesbury & Hampton, *1.	\$157,424 98	\$29,580 36	\$53,386 90	—	\$25 00	\$11,275 00	\$251,692 24			
2	Bay State, ...	25,250,009 77	9,303,825 28	9,352,904 51	\$407,896 55	1,994,220 55	3,610,042 77	49,918,799 43			
3	Berkshire, ...	2,764,397 25	796,286 76	1,156,340 55	4,775,976 16	101,373 93	182,223 73	9,776,598 38			
4	Blue Hill, ...	409,721 29	136,786 31	112,251 33	—	13,758 01	4,781 96	678,298 90			
5	Boston & Chelsea, ...	121,000 00	—	—	—	150 00	—	121,150 00			
6	Boston Elevated, ...	30,885,608 59	3,004,862 33	12,566,734 06	188,385 05	6,014,673 46	4,931,840 49	57,592,103 98			
7	Boston & Revere Electric, ...	73,815 23	9,919 79	25,136 00	—	—	3,804 16	112,075 18			
8	Boston & Worcester, ...	3,431,684 64	739,526 03	914,023 44	—	60,165 47	119,195 91	5,264,585 49			
9	Bristol & Norfolk, ...	141,147 61	7,659 62	6,617 99	3,946 02	2,667 16	—	162,038 40			
10	Brookton & Plymouth, ...	393,008 19	104,555 94	228,247 66	28,241 15	47,576 37	34,189 69	835,819 00			
11	Citizens' Electric, *1.	343,695 32	101,281 17	109,806 88	9,740 75	1,166 23	71,992 45	637,882 80			
12	Concord, Maynard & Hudson, ...	312,378 62	90,930 77	115,432 15	5,784 75	28,300 36	8,248 49	561,075 14			
13	Connecticut Valley, ...	937,135 38	207,532 47	179,371 86	8,036 47	36,711 94	52,176 55	1,413,984 07			
14	Conway Electric, ...	74,751 88	18,753 88	140,799 63	—	2,242 31	6,449 03	242,996 63			
15	Dedham & Franklin, ...	117,352 95	20,994 31	36,015 49	—	245 16	1,851 86	176,459 77			
15	{ Dedham & Franklin (receiver), ...	—	—	—	—	3,701 88	—	3,701 88			
16	East Middlesex, ...	344,518 03	102,105 79	58,662 11	—	4,075 38	222 00	509,583 31			
17	East Taunton, ...	147,832 07	30,896 25	7,648 25	300 00	12,944 66	—	199,621 23			
18	Fitchburg & Leominster, ...	882,030 51	285,846 69	304,154 18	115,863 78	101,834 44	45,062 51	1,704,792 11			

19	Gardner, Westminster & Fitchburg.*	232,828 45	87,578 17	75,375 70	13,988 84	4,382 75	6,435 09	490,288 80
20	Haverhill & Amesbury.* ¹	706,905 10	145,868 31	36,348 27	-	19,609 38	17,068 53	925,789 50
21	Haverhill & Plainfield.* ¹	67,756 46	-	200 00	-	38,304 29	-	106,260 75
22	Holyoke.	1,177,684 14	547,279 46	459,071 70	67,821 66	21,894 86	3,850 10	2,277,601 92
23	Interstate Consolidated.	478,083 83	395 46	64,184 31	-	44,279 19	94 92	587,037 21
24	Lawrence & Methuen.* ¹	294,814 83	81,341 38	25,374 32	-	7,891 08	-	409,421 61
25	Linwood.	7,976 52	14,577 10	-	-	1,803 90	269 17	24,626 69
26	Lowell & Fitchburg.	518,051 06	52,214 16	53,934 38	-	8,590 72	1,510 00	684,300 32
27	Lowell & Pelham.* ¹	55,174 62	41,878 55	200 00	-	-	-	97,248 17
28	Martha's Vineyard.	5,942 77	12,236 01	4,739 10	-	-	-	22,817 88
29	Massachusetts Northeastern.	2,310,589 70	657,674 03	446,636 52	9,740 75	37,172 96	159,212 88	3,621,016 84
30	Medfield & Medway.	215,159 17	21,108 03	1,352 39	-	1,075 94	648 11	239,343 64
	Medfield & Medway (receiver).	-	-	-	-	1,128 95	-	1,128 95
31	Middlesex & Boston.	2,818,467 23	1,186,422 42	923,244 47	-	41,202 40	88,719 37	5,068,055 89
32	Millford, Attleborough & Woonsocket.	400,317 41	114,670 46	89,481 50	28,669 24	26,636 55	25,048 71	684,822 87
33	Millford & Uxbridge.	606,480 73	224,562 82	233,857 26	29,703 23	16,435 30	19,984 41	1,131,013 75
34	Mount Tom.	58,216 46	4,900 00	36,983 54	-	2,468 24	-	101,568 24
35	Nahant & Lynn.	159,178 99	51,436 79	37,264 50	-	4,848 76	-	252,729 04
36	New Bedford & Onset.	150,000 00 ²	111,998 90	203,900 24	53,736 42	18,404 24	301 84	150,000 00 ²
		579,358 27	-	-	-	5,826 77	-	967,699 91
37	Newtonville & Watertown.	108,423 47	-	-	-	-	-	114,250 24
38	Norfolk & Bristol.	283,087 42	79,244 70	94,539 78	-	22,681 09	2,895 84	482,448 83
39	Northampton.	429,224 82	203,523 69	211,293 42	2,010 76	3,483 29	24,552 54	874,088 52
40	North End.	100,480 28	51,355 04	13,674 76	-	1,021 84	-	166,531 92

¹ Consolidated with the Massachusetts Northeastern April 2, 1913.

² Consolidated with the Athol & Orange (name changed to Northern Massachusetts) February 28, 1913.

³ Property covered by a mortgage given to the Middleboro', Wareham & Buzzard's Bay, but not assumed by the New Bedford & Onset in the consolidation.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		ASSETS JUNE 30, 1913 — Concluded.						
		1. — Cost of Railway.	2. — Cost of Equipment.	3. — Cost of Land, Buildings, etc.	4. — Cost of Other Permanent Investments.	5. — Cash and Current Assets.	6. — Miscel- laneous Assets.	7. — Gross Assets.
11	Northern Massachusetts, ...	\$636,181 71	\$239,677 14	\$132,954 45	\$145,690 58	\$239,247 05	\$52,178 41	\$1,445,919 34
12	Norton & Taunton, ...	502,001 60	83,775 16	82,404 30	—	11,149 31	14,047 59	693,377 96
13	Norwood, Canton & Sharon, ...	130,990 87	23,287 11	8,453 95	—	2,832 72	1,255 90	166,830 55
14	Oak Bluffs, ...	51,717 82	—	3,500 00	—	13,831 02	2,175 73	71,224 57
15	Plymouth & Sandwich, ...	96,845 54	9,692 17	7,724 84	1,137 63	938 03	—	116,336 01
16	Point Shirley, ...	13,300 00	11,000 00	2,950 00	—	124 61	—	27,374 61
17	Providence & Fall River, ...	252,429 21	97,406 70	31,921 36	—	6,012 20	1,174 38	388,943 85
18	Shelburne Falls & Colrain, ...	107,418 67	20,329 81	28,750 50	1,480 06	1,966 92	3,932 60	163,878 56
19	Somerville, ...	153,000 00	—	—	—	—	—	153,000 00
20	Springfield, ...	4,584,738 28	1,327,258 86	1,517,777 67	50,248 13	259,232 40	176,238 52	7,915,543 86
21	Taunton & Pawtucket, ...	200,181 90	80,916 67	54,325 39	—	423 98	2,008 05	337,855 99
22	Templeton,*1	230,808 65	2,010 85	2,260 27	390,672 75	16,126 84	8,549 62	650,428 98
23	Union, ...	1,089,546 25	492,611 42	1,063,585 75	66,800 56	107,589 93	78,648 33	2,898,532 24
24	Ware & Brookfield, ...	148,319 15	32,919 04	51,670 00	—	359 43	1,850 79	235,118 41
25	Warren, Brookfield & Spencer, ...	259,451 39	41,596 55	67,070 76	—	1,620 83	18,993 80	388,633 33
26	Warren, Brookfield & Spencer (receiver), ...	2,098 95	10,761 97	359 56	—	7,709 04	5,276 86	26,206 38
27	Webster & Dudley, ...	125,744 53	12,968 91	8,072 86	—	—	—	146,786 30
28	West End, ...	13,712,619 01	11,318,783 20	13,917,855 70	299,273 08	1,242,313 96	—	40,490,844 65

58	Winnimmet, ...	50,000 00	-	-	-	1,569 32	50 00	51,619 32
59	Worcester Consolidated, ...	6,462,896 10	2,634,560 44	3,158,458 40	76,928 35	213,434 69	411,674 56	12,957,952 54
60	Worcester & Shrewsbury R.R., ...	70,803 58	52,710 86	-	-	-	-	123,514 44
61	Worcester & Shrewsbury St. Ry., ...	11,700 00	8,300 00	-	-	23 05	-	20,023 05
62	Worcester & Webster, ...	268,601 67	89,092 04	134,096 77	-	1,450 00	44,531 26	537,821 74
	Totals, :	\$105,623,600 01	\$34,751,749 34	\$48,343,319 04	\$6,367,460 38	\$10,795,459 67	\$10,141,163 82	\$316,023,752 26

¹ Consolidated with the Athol & Orange (name changed to Northern Massachusetts) December 31, 1912.

² Not including companies marked *; these companies having been consolidated during the year.

Tabulated Statements from Returns of Street Railway Companies—Continued.

	RAILWAY COMPANIES.	LIABILITIES JUNE 30, 1913.						14.—Gross Liabilities.
		8.—Capital Stock.	9.—Funded Debt.	10.—Real Estate Mortgages.	11.—Current Liabilities.	12.—Accrued Liabilities.	13.—Sinking and Other Reserve Funds.	
1	Amesbury & Hampton,* ¹	\$100,000 00	\$100,000 00	—	\$126,028 60	\$270 00	\$25,275 00	\$351,573 60
2	Bay State, ...	23,265,800 00*	23,106,000 00	—	2,148,954 42	402,086 10	425,028 82	49,348,469 34
3	Berkshire, ...	5,398,100 00	1,700,000 00	—	2,710,936 88	71,654 67	30,253 28	9,910,944 83
4	Blue Hill, ...	300,000 00	250,000 00	—	170,989 47	5,393 82	1,783 42	728,166 71
5	Boston and Chelsea, ...	121,000 00	—	—	150 00	—	—	121,150 00
6	Boston Elevated, ...	23,879,400 00	22,300,000 00	—	4,504,021 24	1,608,074 25	2,353,964 76	54,645,460 85
7	Boston & Revere Electric, ...	50,000 00	50,000 00	—	—	—	2,500 00	102,500 00
8	Boston & Worcester, ...	2,422,200 00*	2,460,000 00	—	201,422 56	79,066 20	7,944 00	5,170,632 76
9	Bristol & Norfolk, ...	100,000 00	70,000 00	—	35,965 79	—	—	205,965 79
10	Brockton & Plymouth, ...	405,000 00*	295,000 00	—	37,278 89	6,618 71	46,063 85	789,961 45
11	Citizens' Electric,* ¹	240,000 00	230,000 00	—	71,717 09	5,885 91	21,000 00	568,603 00
12	Concord, Maynard & Hudson, ...	235,000 00	230,000 00	—	45,720 54	8,648 33	683 12	520,051 99
13	Connecticut Valley, ...	620,000 00*	580,000 00	\$1,800 00	183,122 24	17,827 42	1,107 35	1,403,867 01
14	Conway Electric, ...	100,000 00	100,000 00	—	61,543 17	—	—	261,543 17
15	Dedham & Franklin, ...	75,000 00	100,000 00	—	24,372 89	13 00	—	199,385 39
15	[Dedham & Franklin (receiver), ...	—	—	—	2,592 52	—	—	2,592 52
16	East Middlesex, ...	297,700 00	220,000 00	—	20 00	—	—	517,720 00
17	East Taunton, ...	110,000 00	45,000 00	—	1,443 95	704 31	—	157,148 26

18	Fitchburg & Leominster, ...	450,000 00	400,000 00	-	806,155 81	13,901 75	-	1,070,117 56
19	Gardner, Westminister & Fitchburg,*†	185,000 00	185,000 00	-	19,758 95	2,363 70	643 46	392,766 11
20	Haverhill & Amesbury,*†	380,000 00	290,000 00	-	165,000 00	1,904 10	83,300 00	920,204 10
21	Haverhill & Plaistow,*†	30,000 00	30,000 00	-	-	300 00	13,000 00	73,300 00
22	Holyoke, ...	1,073,600 00	600,000 00	-	212,374 51	8,000 00	66,518 76	1,960,493 27
23	Interstate Consolidated, ...	275,000 00	-	-	278,764 24	7,782 30	18,584 68	580,131 22
24	Lawrence & Methuen,*†	165,000 00	125,000 00	-	67,500 00	1,410 00	60,800 00	419,710 00
25	Linwood, ...	12,000 00	-	-	4,500 00	-	-	16,500 00
26	Lowell & Fitchburg, ...	275,000 00	275,000 00	-	1,500 00	-	-	551,500 00
27	Lowell & Pelham,*†	40,000 00	40,000 00	-	58,117 29	210 00	6,300 00	144,827 29
28	Martha's Vineyard, ...	8,000 00	-	-	13,837 96	-	-	21,837 96
29	Massachusetts Northeastern, ...	1,455,000 00	1,285,000 00	-	794,170 06	12,521 50	70,469 27	3,617,160 83
30	Medfield & Medway, ...	100,000 00	100,000 00	-	86,229 03	-	-	286,229 03
	Medfield & Medway (receiver), ...	-	-	-	3,115 34	-	-	3,115 34
31	Middlesex & Boston, ...	1,987,000 00	1,983,000 00	-	1,344,588 53	10,036 58	-	5,324,625 11
32	Millford, Attleborough & Woonsocket, ...	315,000 00	300,000 00	-	16,474 38	6,791 21	14,919 11	653,184 70
33	Millford & Uxbridge, ...	540,000 00 [†]	500,000 00	-	50,813 38	9,912 74	7,010 89	1,107,737 01
34	Mount Tom, ...	100,000 00	-	-	-	-	-	100,000 00
35	Nahant & Lynn, ...	100,000 00	100,000 00	-	9,834 88	1,759 18	5,500 00	217,094 06

¹ Consolidated with the Massachusetts Northeastern April 2, 1913.

² Common stock, \$20,517,200; preferred stock, \$2,748,600.

³ Common stock, \$2,025,000; preferred stock, \$397,200.

⁴ Common stock, \$295,000; preferred stock, \$110,000.

⁵ Common stock, \$500,000; preferred stock, \$120,000.

⁶ Consolidated with the Abol & Orange (name changed to Northern Massachusetts) February 28, 1913.

⁷ Common stock, \$440,000; preferred stock, \$100,000.

Tabulated Statements from Returns of Street Railway Companies — Continued.

		LIABILITIES JUNE 30, 1913 — Concluded.						
RAILWAY COMPANIES.		8. — Capital Stock.	9. — Funded Debt.	10. — Real Estate Mortgages.	11. — Current Liabilities.	12. — Accrued Liabilities.	13. — Sinking and Other Reserve Funds.	14. — Gross Liabilities.
36	New Bedford & Onset, ...	\$550,000 00	{ \$150,000 00 ¹ 280,000 00 }	-	\$2,457 33	\$7,400 44	\$71,797 41	{ \$150,000 00 ¹ 911,655 18 }
37	Newtonville & Watertown, ...	50,000 00	-	-	59,650 00	-	-	109,650 00
38	Norfolk & Bristol, ...	200,000 00	200,000 00	-	956 58	-	-	400,956 58
39	Northampton, ...	700,000 00	-	-	155,600 00	-	3,736 65	859,336 65
40	North End, ...	110,000 00	75,000 00	-	-	-	-	185,000 00
41	Northern Massachusetts, ...	500,000 00 ²	500,000 00	\$2,000 00	387,957 58	25,028 98	1,467 52	1,416,454 03
42	Norton & Taunton, ...	297,000 00	296,000 00	-	154,769 17	-	-	747,769 17
43	Norwood, Canton & Sharon, ...	62,500 00	-	-	2 47	-	-	62,502 47
44	Oak Bluffs, ...	60,000 00	-	-	12,188 46	-	-	72,188 46
45	Plymouth & Sandwich, ...	60,000 00	-	-	51,692 31	-	-	111,692 31
46	Point Shirley, ...	25,000 00	-	-	6,744 56	-	-	31,744 56
47	Providence & Fall River, ...	165,000 00	165,000 00	-	111,833 78	1,424 37	-	443,258 15
48	Shelburne Falls & Colrain, ...	50,000 00	96,700 00	-	750 00	-	-	146,450 00
49	Somerville, ...	153,000 00	-	-	-	-	-	153,000 00
50	Springfield, ...	3,706,100 00	2,305,000 00	-	1,425,660 98	152,115 06	55,877 17	7,046,753 20
51	Taunton & Pawtucket, ...	100,000 00	200,000 00	-	93,806 05	551 63	-	394,357 68
52	Templeton,*	75,000 00	-	325,000 00	377,990 07	8,303 88	-	786,293 95

53	Union, ...	1,625,000 00	500,000 00	-	27,043 66	64,354 20	40,620 91	2,257,618 77
54	Ware & Brookfield, ...	100,000 00	135,000 00	-	68,644 30	-	-	303,644 30
55	{ Warren, Brookfield & Spencer, ...	150,000 00	125,000 00	-	68,015 10	1,993 26	28,508 05	373,516 41
	{ Warren, Brookfield & Spencer (receiver), ...	-	-	-	22,790 81	264 56	-	23,055 37
56	Webster & Dudley, ...	50,000 00	30,000 00	-	90,158 49	-	-	170,158 49
57	West End, ...	19,130,150 00 ¹	18,871,000 00	-	36,138 69	-	-	38,037,288 69
58	Winniammet, ...	50,000 00	-	-	1,500 00	-	-	51,500 00
59	Worcester Consolidated, ...	5,112,000 00	4,467,000 00	-	2,693,034 18	232,153 44	95,228 61	12,599,416 23
60	Worcester & Shrewsbury R.R., ...	36,825 00	22,000 00	-	369 72	-	-	59,194 72
61	Worcester & Shrewsbury St. Ry., ...	20,000 00	-	-	-	-	-	20,000 00
62	Worcester & Webster, ...	150,000 00	150,000 00	-	265,913 06	-	44,581 26	610,494 32
	Totals, ²	\$97,284,375 00	\$85,615,700 00	\$3,800 00	\$19,489,169 56	\$2,756,737 95	\$3,394,148 89	\$208,543,931 40

¹ Property covered by a mortgage given by the Middleboro', Wareham & Buzzard's Bay, but not assumed by the New Bedford & Onset in the consolidation.

² Common stock, \$350,000; preferred stock, \$150,000.

³ Consolidated with the Athol & Orange (name changed to Northern Massachusetts) December 31, 1912.

⁴ Common stock, \$12,730,150; preferred stock, \$6,400,000.

⁵ Not including the companies marked *, these companies having been consolidated during the year.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		PROPERTY ACCOUNTS: ADDITIONS AND DEDUCTIONS DURING THE YEAR.						
		15. — Additions to Cost of Railway.	16. — To Equipment.	17. — To Land, Buildings, etc.	18. — To Other Permanent Property.	19. — Total Additions.	20. — Deductions.	21. — Net Additions to Property Accounts.
1	Amesbury & Hampton,	-	-	\$210 23	-	\$210 23	-	\$210 23
2	Bay State,	\$784,168 52	\$216,089 57	144,004 84	\$12,191 87	1,156,454 80	\$29,238 38	1,127,216 42
3	Berkshire,	126,760 81	43,799 58	236,509 27	1,160,894 71	1,567,964 37	14,926 34	1,543,038 03
4	Blue Hill,	-	-	-	-	-	-	-
5	Boston & Chelsea,	-	-	-	-	-	-	-
6	Boston Elevated,	700,444 53	102,122 73	994,821 09	4,702 47	1,802,090 82	262,062 50	1,540,028 32
7	Boston & Revere Electric,	-	-	-	-	-	-	-
8	Boston & Worcester,	15,597 62	29,364 91	8,051 39	14,000 00	67,013 92	12,011 24	55,002 68
9	Bristol & Norfolk,	101 12	-	706 97	-	808 09	-	808 09
10	Brockton & Plymouth,	-	1,977 88	-	-	1,977 88	-	1,977 88
11	Citizens' Electric,	-	-	-	-	-	-	-
12	Concord, Maynard & Hudson,	153 10	269 00	-	5,784 75	6,206 85	4,201 40	2,005 45
13	Connecticut Valley,	26,282 25	31,733 50	2,249 57	3,836 47	64,101 79	38,597 17	25,504 62
14	Conway Electric,	-	4,928 33	-	-	4,928 33	-	4,928 33
15	Dedham & Franklin,	-	-	-	-	-	-	-
	{ Dedham & Franklin (receiver),	-	-	-	-	-	-	-
16	East Middlesex,	-	-	-	-	-	-	-
17	East Taunton,	-	522 65	-	100 00	622 65	5 00	617 65

18	Fitchburg & Leominster,	6,267 55	2,264 57	1,810 16	1,988 14	12,330 42	2,675 00	9,655 42
19	Gardner, Westminster & Fitchburg,	2,247 80	9,401 49	87 95	1,821 94	18,559 18	-	13,559 18
20	Haverhill & Amesbury,	-	-	-	-	-	-	-
21	Haverhill & Plattsburgh,	-	-	-	-	-	-	-
22	Holyoke,	77,343 22	91,460 46	35,911 24	8,518 11	213,233 08	100 00	213,133 03
23	Interstate Consolidated,	2,310 10	268 75	11 23	-	2,590 08	-	2,590 08
24	Lawrence & Methuen,	40 32	-	204 12	-	244 44	-	244 44
25	Linwood,	-	-	-	-	-	1,989 12	1,989 12*
26	Lowell & Fitchburg,	-	452 82	-	-	452 82	-	452 82
27	Lowell & Pelham,	-	-	-	-	-	-	-
28	Martha's Vineyard,	-	12,236 01	2,239 10	-	14,475 11	-	14,475 11
29	Massachusetts Northeastern,	2,138,993 91	601,075 80	441,640 70	9,740 75	3,191,451 16	-	3,191,451 16
30	{Medfield & Medway, Medfield & Medway (receiver),	-	-	-	-	-	-	-
31	Middlesex & Boston,	682,161 48	327,462 30	243,113 20	-	1,252,736 98	753 50	1,251,983 48
32	Millford, Attleborough & Woonsocket,	2,065 61	5,122 35	1,037 70	-	8,235 66	-	8,225 66
33	Millford & Uxbridge,	693 80	6,158 17	3,041 57	1,223 49	11,117 03	-	11,117 03
34	Mount Tom,	-	-	100 00	-	100 00	-	100 00
35	Nahant & Lynn,	7,182 12	540 20	8,225 77	-	15,948 09	9,025 93	6,922 16
36	New Bedford & Onset,	5,247 90	3,824 20	180 00	-	9,252 10	2,491 92	6,760 18
37	Newtonville & Watertown,	-	-	-	-	-	-	-
38	Norfolk & Bristol,	-	255 86	-	-	255 86	465 00	209 14*
39	Northampton,	6,304 87	2,567 05	13,058 08	-	21,930 00	875 00	21,065 00
40	North End,	-	-	-	-	-	-	-

* Net deductions.

Tabulated Statements from Returns of Street Railway Companies — Continued.

	RAILWAY COMPANIES.	PROPERTY ACCOUNTS: ADDITIONS AND DEDUCTIONS DURING THE YEAR — Concluded.						21. — Net Additions to Property Accounts.
		15. — Additions to Cost of Railway.	16. — To Equipment.	17. — To Land, Buildings, etc.	18. — To Other Permanent Property.	19. — Total Additions.	20. — Deductions.	
41	Northern Massachusetts.	\$561,689 85	\$152,551 35	\$111,963 08	\$126,445 53	\$952,649 81	\$12,079 85	\$940,569 96
42	Norton & Taunton.	612 84	775 44	—	—	1,388 28	—	1,388 28
43	Norwood, Canton & Sharon.	—	—	—	—	—	—	—
44	Oak Bluffs.	4,696 46	56 55	1,000 00	—	5,753 01	13,767 86	8,014 35
45	Plymouth & Sandwich.	11,017 55	465 00	2,400 00	—	13,882 55	737 87	13,145 18
46	Point Shirley.	—	—	600 00	—	600 00	—	600 00
47	Providence & Fall River.	119 25	66 00	90 00	—	275 25	100 00	175 25
48	Shelburne Falls & Colrain.	2 00	354 63	377 95	—	734 60	—	734 60
49	Somerville.	—	—	—	—	—	—	—
50	Springfield.	199,553 28	32,735 29	655 74	—	232,944 31	5 00	232,939 31
51	Taunton & Pawtucket.	—	194 89	—	—	194 89	—	194 89
52	Templeton.	210,637 37	390 20	187 47	1,152 26	212,367 30	116,451 95	95,915 35
53	Union.	23,080 16	19,919 16	17,414 63	9,912 25	70,326 20	310 00	70,016 20
54	Ware & Brookfield.	—	300 00	—	—	300 00	599 84	259 84*
55	{ Warren, Brookfield & Spencer. Warren, Brookfield & Spencer (receiver),	2,098 95	10,761 97	359 56	—	13,220 48	—	13,220 48

56	Webster & Dudley, ...	2,900 63	-	-	-	2,900 63	-	2,900 63
57	West End, ...	531,545 33	531,538 22	132,568 98	-	1,235,762 53	253,661 50	982,001 03
58	Winnimmet, ...	-	-	-	-	-	-	-
59	Worcester Consolidated, ...	148,025 89	59,984 50	514,297 32	-	722,307 71	-	722,307 71
60	Worcester & Shrewsbury R.R., ...	-	-	-	-	-	-	-
61	Worcester & Shrewsbury St. Ry., ...	-	-	-	-	-	-	-
62	Worcester & Webster, ...	4,171 03	-	50 00	-	4,221 02	-	4,221 02

* Net deductions.

Tabulated Statements from Returns of Street Railway Companies — Continued.

	RAILWAY COMPANIES.	INCOME ACCOUNT FOR THE YEAR ENDING JUNE 30, 1913.						
		22. — Passenger Revenue.	23. — Baggage Revenue.	24. — Puller, Chair and Special Car Revenue.	25. — Mail Revenue.	26. — Express Revenue.	27. — Milk Revenue.	28. — Freight Revenue.
1	Amesbury & Hampton, ¹	\$17,889 37	-	\$344 60	-	-	-	\$1 00
2	Bay State,	8,792,790 37	-	54,096 27	\$6,230 77	\$196,367 06	\$2,635 01	-
3	Berkshire,	892,889 87	\$81 80	6,014 48	104 16	11,849 26	1,320 53	7,382 18
4	Blue Hill,	88,154 39	-	1,301 78	200 00	-	-	-
5	Boston & Chelsea, ²	-	-	-	-	-	-	-
6	Boston Elevated,	16,268,607 22	-	21,311 74	37,097 06	26,378 42	-	-
7	Boston & Revere Electric, ³	-	-	-	-	-	-	-
8	Boston & Worcester,	638,042 51	-	3,126 12	451 27	12,460 59	78 19	12,399 16
9	Bristol & Norfolk,	14,000 91	-	-	-	-	-	-
10	Brockton & Plymouth,	110,937 25	-	1,131 80	595 05	5,399 43	-	-
11	Citizens' Electric, ¹	82,108 98	-	226 35	107 10	-	-	814 68
12	Concord, Maynard & Hudson,	71,680 62	-	-	423 35	13 00	-	-
13	Connecticut Valley,	221,999 05	-	-	4,694 45	9,457 98	-	-
14	Conway Electric,	2,824 55	80 70	-	372 54	682 79	981 03	5,253 80
15	Dedham & Franklin, ¹	-	-	-	-	-	-	-
15	{ Dedham & Franklin (receiver),	22,308 67	-	59 05	149 94	-	-	-
16	East Middlesex, ²	-	-	-	-	-	-	-
17	East Taunton,	47,080 23	-	-	-	-	-	-

18	Fitchburg & Leominster, ...	305,392 79	-	972 40	250 00	8,127 41	-	-
19	Gardner, Westminster & Fitchburg, ⁴	48,092 28	-	-	255 93	3,758 78	-	-
20	Haverhill & Amcebury, ¹	134,031 76	-	1,462 05	358 60	597 50	-	52 00
21	Haverhill & Plaistow, ¹	10,241 02	-	110 55	-	-	-	90
22	Holyoke, ...	597,968 21	-	4,329 26	1,777 16	-	2,305 26	7,409 63
23	Interstate Consolidated, ...	184,671 00	-	675 83	586 31	6,131 92	2 40	-
24	Lawrence & Methuen, ¹	80,820 06	-	934 87	-	-	-	2 69
25	Linwood, ...	17,679 15	-	-	310 00	-	-	-
26	Lowell & Fitchburg, ...	55,538 82	-	189 70	-	-	-	381 76
27	Lowell & Pelham, ¹	7,944 18	-	55 35	-	-	-	-
28	Martha's Vineyard, ⁴	-	-	-	-	-	-	-
29	Massachusetts Northeastern, ...	211,842 22	-	2,947 70	511 88	-	-	453 48
30	Medfield & Medway, ...	-	-	-	-	-	-	-
	Medfield & Medway (receiver), ...	18,651 75	-	103 10	-	-	-	-
31	Middlesex & Boston, ...	899,299 75	-	4,754 78	1,127 31	-	-	2,299 44
32	Millford, Attleborough & Woonsocket, ...	106,531 30	-	907 04	544 96	1,595 45	26 46	-
33	Millford & Uxbridge, ...	198,442 50	-	1,447 12	506 80	-	-	-
34	Mount Tom, ⁴	-	-	-	-	-	-	-
35	Nahant & Lynn, ...	69,479 07	-	-	-	-	-	-

¹ Operations to March 31, 1913, when consolidated with the Massachusetts Northeastern April 2, 1913.
² Leased to the Boston Elevated and re-leased to and operated by the Bay State.
³ Leased to and operated by the Bay State.

⁴ Operations to February 28, 1913, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).
⁵ Leased to and operated by the Oak Bluffs.
⁶ Leased to and operated by the Holyoke.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		INCOME ACCOUNT FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		22. — Passenger Revenue.	23. — Baggage Revenue.	24. — Parlor, Chair and Special Car Revenue.	25. — Mail Revenue.	26. — Express Revenue.	27. — Milk Revenue.	28. — Freight Revenue.
36	New Bedford & Onset, ...	\$121,082 43	-	\$1,104 26	\$2,635 27	\$733 85	-	\$11,726 66
37	Newtonville & Watertown, ¹	-	-	-	-	-	-	-
38	Norfolk & Bristol, ...	95,163 80	-	-	229 17	-	-	-
39	Northampton, ...	207,070 55	-	756 35	1,328 18	-	-	-
40	North End, ²	-	-	-	-	-	-	-
41	Northern Massachusetts, ...	116,578 81	-	-	326 36	8,112 65	\$25 00	-
42	Norton & Taunton, ...	64,590 05	-	-	366 05	-	-	-
43	Norwood, Canton & Sharon, ...	10,853 10	-	-	-	-	-	-
44	Oak Bluffs, ...	6,180 05	-	-	-	-	-	-
45	Plymouth & Sandwich, ...	9,610 34	-	27 00	229 13	-	-	-
46	Point Shirley, ...	7,429 95	-	-	-	-	-	-
47	Providence & Fall River, ...	31,538 61	-	130 05	377 22	-	-	17,698 90
48	Shelburne Falls & Colrain, ...	12,146 51	-	-	301 15	-	1,156 68	15,310 77
49	Somerville, ³	-	-	-	-	-	-	-
50	Springfield, ...	1,098,857 72	-	9,064 38	3,000 76	36,062 26	3,217 42	157 95
51	Taunton & Pawtucket, ...	50,499 43	-	-	-	-	-	-
52	Templeton, ⁴	33,900 97	-	-	209 59	4,831 92	72 88	-
53	Union, ...	884,988 60	-	5,093 67	3,830 14	152 80	-	39,642 54

54	Ware & Brookfield, ...	83,194 73	-	-	-	-	131 75	-
55	{ Warren, Brookfield & Spencer, ...	-	-	-	-	-	-	-
	{ Warren, Brookfield & Spencer (receiver), ...	53,198 32	249 16	151 44	-	-	-	43 76
56	Webster & Dudley, *	-	-	-	-	-	-	-
57	West End, *	-	-	-	-	-	-	-
58	Winnimmet, *	-	-	-	-	-	-	-
59	Worcester Consolidated, ...	2,608,989 29	-	7,631 06	4,369 62	15,722 27	1,716 82	1,126 28
60	Worcester & Shrewsbury R.R., *	-	-	-	-	-	-	-
61	Worcester & Shrewsbury St. Ry., *	-	-	-	-	-	-	-
62	Worcester & Webster, *	-	-	-	-	-	-	-
	Totals, ...	\$36,559,543 10	\$211 66	\$130,560 15	\$73,877 28	\$348,435 33	\$13,672 43	\$122,162 58

* Tracks used by the Boston Elevated and Middlesex & Boston.

* Leased to and operated by the Worcester Consolidated.

* Leased to and operated by the Boston Elevated.

* Operations to December 31, 1912, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

* Leased to and operated by the Bay State.

* Leased to the Webster & Dudley and operated by the Worcester Consolidated under an assignment from the Connecticut Company of Connecticut of its lease of the Webster & Dudley.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		INCOME ACCOUNT FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		20. — Miscellaneous Transportation Revenue.	26. — Total Revenue from Transportation.	31. — Total Revenue from Operations other than Transportation.	32. — Total Operating Revenues.	33. — Rents from Lease of Road.	34. — Miscellaneous Income.	35. — Gross Income.
1	Anneburg & Hampton, ¹	—	\$18,234 97	\$90 00	\$18,324 97	—	\$495 91	\$18,820 88
2	Bay State,	\$74 57	9,052,194 06	154,209 43	9,206,403 48	—	194,243 39	9,400,646 87
3	Berkshire,	260 47	919,902 74	42,820 70	962,723 44	—	2,947 20	965,670 64
4	Blue Hill,	—	89,656 17	4,959 06	94,615 23	—	—	94,615 23
5	Boston & Chelsea, ²	—	—	—	—	\$7,560 00	—	7,560 00
6	Boston Elevated,	1,694 91	16,355,089 35	453,319 60	16,808,908 95	—	159,419 38	16,968,328 33
7	Boston & Revere Electric, ³	—	—	—	—	5,939 97	50 47	5,990 44
8	Boston & Worcester,	200 00	656,757 84	6,608 66	663,366 50	—	5,571 43	668,937 93
9	Bristol & Norfolk,	—	14,000 91	434 50	14,435 41	—	57 35	14,492 76
10	Brookton & Plymouth,	—	118,063 53	3,852 42	121,915 95	—	187 74	122,103 69
11	Citizens' Electric, ¹	—	83,257 11	939 92	84,197 03	—	159 76	84,356 79
12	Concord, Maynard & Hudson,	—	72,116 97	1,434 28	73,551 25	—	—	73,551 25
13	Connecticut Valley,	—	236,081 48	969 19	237,050 67	—	—	237,050 67
14	Conway Electric,	—	10,200 41	1,430 00	11,630 41	—	—	11,630 41
15	{ Dedham & Franklin, Dedham & Franklin (recovered),	—	—	—	—	—	—	—
		—	22,517 66	1,050 00	23,567 66	—	—	23,567 66
16	East Middlesex, ²	—	—	—	—	30,643 30	81 13	30,724 43
17	East Taunton,	—	47,980 22	—	47,980 22	—	580 09	48,560 31

18	Fitchburg & Leominster, ...	-	314,742 80	5,268 66	320,011 26	-	619 04	320,630 30
19	Gardner, Westminster & Fitchburg, *	-	53,006 99	1,687 40	54,694 39	-	-	54,694 39
20	Haverhill & Amesbury, ¹	-	136,701 91	442 60	137,144 51	-	42 78	137,187 29
21	Haverhill & Plaistow, ¹	-	16,352 47	49 50	16,401 97	-	-	16,401 97
22	Holyoke, ...	-	613,789 52	2,755 93	616,545 45	-	1,168 45	617,713 90
23	Interstate Consolidated, ...	14 36	192,081 82	2,267 52	194,339 34	-	1,006 99	195,345 33
24	Lawrence & Methuen, ¹	-	81,767 62	245 32	82,002 94	-	110 46	82,113 40
25	Linwood, ...	204 00	18,193 15	-	18,193 15	-	-	18,193 15
26	Lowell & Fitchburg, ...	-	56,110 28	1,164 82	57,275 10	-	270 10	57,545 20
27	Lowell & Pelham, ¹	-	7,999 53	86 00	8,085 53	-	-	8,085 53
28	Martha's Vineyard, *	-	-	-	-	460 00	-	460 00
29	Massachusetts Northeastern, ...	-	215,656 28	952 40	216,607 68	-	16 65	216,624 33
30	Medfield & Medway, ...	-	-	-	-	-	-	-
30	Medfield & Medway (receiver), ...	-	18,754 85	60 00	18,814 85	-	-	18,814 85
31	Middlesex & Boston, ...	1,350 00	908,831 28	31,659 45	940,490 73	-	745 00	941,235 73
32	Milford, Attleborough & Woonsocket, ...	71 92	109,677 13	6,015 85	115,692 48	-	929 26	116,621 74
33	Milford & Uxbridge, ...	1,456 41	201,855 83	21,481 06	223,336 89	-	-	223,336 89
34	Mount Tom, *	-	-	-	-	6,000 00	124 95	6,124 95
35	Nahant & Lynn, ...	-	69,479 07	107 33	69,586 40	-	-	69,586 40

⁴ Operations to February 28, 1913, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

Leased to and operated by the Oak Bluffs.

Leased to and operated by the Oak Bluffs.

Leased to and operated by the Holyoke.

Operations to March 31, 1913, when consolidated with the Massachusetts Northeastern April 2, 1913.

Leased to the Boston Elevated and re-leased to and operated by the Bay State.

is Leased to and operated by the Bay State.

Tabulated Statements from Returns of Street Railway Companies. — Continued.

RAILWAY COMPANIES.		INCOME ACCOUNT FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		29. — Miscellaneous Transportation Revenue.	30. — Total Revenue from Transportation.	31. — Total Revenue from Operations other than Transportation.	32. — Total Operating Revenues.	33. — Rents from Lease of Road.	34. — Miscellaneous Income.	35. — Gross Income.
36	New Bedford & Onset,	-	\$137,282 47	\$15,777 32	\$153,059 79	-	-	\$153,059 79
37	Newtonville & Watertown, ¹	-	-	-	-	\$8,281 32	\$55 58	8,336 90
38	Norfolk & Bristol,	-	95,392 97	615 00	96,007 97	-	463 46	96,471 43
39	Northampton,	-	209,155 06	1,433 83	210,588 91	-	138 03	210,726 94
40	North End, ²	-	-	-	-	8,000 00	20 70	8,020 70
41	Northern Massachusetts,	-	125,042 82	2,141 01	127,183 83	-	-	127,183 83
42	Norton & Taunton,	-	64,856 10	277 20	65,133 30	-	-	65,163 20
43	Norwood, Canton & Sharon,	-	10,853 10	360 72	11,213 82	-	-	11,213 82
44	Oak Bluffs,	-	6,180 05	22 13	6,202 18	-	-	6,202 18
45	Plymouth & Sandwich,	-	9,866 47	114 17	9,980 64	-	-	9,980 64
46	Point Shirley,	-	7,439 95	20 50	7,460 45	-	81	7,451 26
47	Providence & Fall River,	-	49,744 78	2,445 15	52,189 93	-	-	52,189 93
48	Sheburne Falls & Colrain,	-	28,918 11	704 73	29,622 84	-	-	29,622 84
49	Somerville, ³	-	-	-	-	9,180 00	-	9,180 00
50	Springfield,	\$2,337 57	2,082,788 06	36,726 94	2,089,515 00	-	2,174 88	2,091,689 88
51	Taunton & Pawtucket,	300 00	50,799 43	-	50,799 43	-	33 88	50,833 31
52	Templeton, ⁴	-	39,015 86	143 45	39,158 81	-	-	39,158 81
53	Union,	646 17	934,353 92	25,380 28	959,734 20	-	-	959,734 20

54	Ware & Brookfield, ...	-	32,326 48	1,606 22	33,932 70	-	33,932 70
55	{ Warren, Brookfield & Spencer, ...	-	-	-	-	-	-
	{ Warren, Brookfield & Spencer (receiver), ...	-	52,442 68	348 15	52,790 83	-	52,790 83
56	Webster & Dudley, ²	-	-	-	-	-	14,500 00
57	West End, ³	-	-	-	-	1,395,521 89	1,404,021 89
58	Winnidmet, ⁴	-	-	-	-	-	3,000 00
59	Worcester Consolidated, ...	2,938 14	2,642,493 48	30,761 17	2,673,254 65	3,790 56	2,677,045 21
60	Worcester & Shrewsbury R.R., ²	-	-	-	-	1,100 00	3,750 00
61	Worcester & Shrewsbury St. Ry., ²	-	-	-	-	-	1,000 00
62	Worcester & Webster, ⁶	-	-	-	-	10,500 00	10,500 00
	Totals, ...	\$11,551 52	\$37,260,014 05	\$965,679 07	\$38,125,693 12	\$1,772,126 32	\$140,014,034 03

¹ Tracks used by the Boston Elevated and Middlesex & Boston.

² Leased to and operated by the Worcester Consolidated.

³ Leased to and operated by the Boston Elevated.

⁴ Operations to December 31, 1912, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

⁵ Leased to and operated by the Bay State.

⁶ Leased to the Webster & Dudley and operated by the Worcester Consolidated under an assignment from the Connecticut Company of Connecticut of its lease of the Webster & Dudley.

Tabulated Statements from Returns of Street Railway Companies — Continued.

		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1913.					
		RAILWAY COMPANIES.					
		34. — Superintendence of Way and Structures.	37. — Maintenance of Way.	38. — Maintenance of Electric Lines.	39. — Buildings and Structures.	40. — Other Operations — Dr.	41. — Other Operations — Cr.
		42. — Superintendence of Equipment.					
1	Amesbury & Hampton, ¹	\$73 68	\$799 02	\$872 13	\$30 19	—	—
2	Bay State, ...	66,084 71	516,494 65	168,075 57	62,183 87	\$1,727 53	—
3	Berkshire, ...	5,121 66	166,212 89	47,247 63	4,844 32*	—	\$193 47
4	Blue Hill, ...	—	7,712 90	888 27	234 11	—	—
5	Boston & Chelsea, ...	—	—	—	—	—	—
6	Boston Elevated, ...	99,199 48	1,311,935 12	190,087 24	160,620 94	—	99,629 50
7	Boston & Revere Electric, ...	—	—	—	—	—	—
8	Boston & Worcester, ...	1,066 50	57,600 77	15,319 49	1,535 26	—	4,859 20
9	Bristol & Norfolk, ...	1,859 36	51 55	71 53	15 68	—	—
10	Brookton & Plymouth, ...	—	4,701 78	1,976 51	1,237 77	—	—
11	Citizens' Electric, ¹	631 06	1,586 96	1,372 88	947 61	—	8 00
12	Concord, Maynard & Hudson, ...	457 50	8,093 37	1,020 79	118 88	—	457 50
13	Connecticut Valley, ...	812 77	10,752 10	2,488 78	437 18	—	2,283 48
14	Conway Electric, ...	—	742 41	—	90	—	—
15	Dedham & Franklin, ...	—	—	—	—	—	—
	{ Dedham & Franklin (receiver), ...	117 32	1,068 91	236 27	169 74	—	—
16	East Middlesex, ...	—	—	—	—	—	—
17	East Taunton, ...	1,000 00	4,880 99	517 71	23 93	—	—

18	Fitchburg & Leominster, ...	1,219 19	25,275 89	4,157 08	1,688 57	-	1,088 42
19	Gardner, Westminster & Fitchburg, †	250 00	2,819 11	398 32	255 33	-	385 80
20	Haverhill & Amesbury, †	779 98	10,586 50	4,000 98	690 36	-	140 60
21	Haverhill & Plalstow, †	14 17	256 95	464 30	16 70	-	16 35
22	Holyoke, ...	1,560 00	53,837 11	8,886 66	1,898 65	-	-
23	Interstate Consolidated, ...	18 15	9,265 30	2,390 05	133 14	-	1 30
24	Lawrence & Methuen, †	513 23	6,987 46	1,870 17	163 67	-	95 25
25	Linwood, ...	-	88 00	-	-	-	-
26	Lowell & Fitchburg, ...	456 50	4,656 74	218 80	57 92	-	450 00
27	Lowell & Pelham, †	53 84	707 89	268 88	20 81	-	12 45
28	Martha's Vineyard, ...	-	-	-	-	-	-
29	Massachusetts Northeastern, ...	1,849 42	18,674 26	6,762 07	582 51	-	279 51
30	{ Medfield & Medway, ...	-	-	-	-	-	-
	{ Medfield & Medway (receiver), ...	117 32	1,199 08	358 41	-	-	-
31	Middlesex & Boston, ...	4,902 50	34,136 59	20,552 81	4,791 65	-	4,735 00
32	Milford, Attleborough & Woonsocket, ...	4 60	10,258 58	1,614 26	465 86	-	6 00
33	Milford & Uxbridge, ...	1,086 00	8,348 28	5,637 88	387 10	-	1,274 00
34	Mount Tom, ...	-	-	-	-	-	-
35	Nahant & Lynn, ...	-	3,165 45	22 85	1 98	-	-

† Operations to March 31, 1913, when consolidated with the Massachusetts Northeastern, April 2, 1913.

‡ Operations to February 28, 1913, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

• Credit.

Tabulated Statements from Returns of Street Railway Companies — Continued.

	RAILWAY COMPANIES.	OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		34. — Superintendence of Way and Structures.	37. — Maintenance of Way.	38. — Maintenance of Electric Lines.	39. — Buildings and Structures.	40. — Other Operations — Dr.	41. — Other Operations — Cr.	42. — Superintendence of Equipment.
36	New Bedford & Onset, ...	\$1,097 85	\$14,190 13	\$2,398 05	\$344 32	-	-	\$1,095 00
37	Newtonville & Watertown, ...	-	-	-	-	-	-	-
38	Norfolk & Bristol, ...	4,000 00	5,086 40	1,579 41	228 87	-	-	1,513 00
39	Northampton, ...	-	28,663 17	2,569 88	551 57	-	-	-
40	North End, ...	-	-	-	-	-	-	-
41	Northern Massachusetts, ...	424 94	4,803 18	196 32	2,255 31	-	-	970 40
42	Norton & Taunton, ...	-	5,727 95	976 31	537 15	-	-	345 00
43	Norwood, Canton & Sharon, ...	-	350 00	53 49	-	-	-	-
44	Oak Bluffs, ...	-	1,100 12	107 79	38 39	-	-	-
45	Plymouth & Sandwich, ...	-	225 00	-	-	-	-	573 92
46	Point Shirley, ...	-	60 40	-	-	-	-	-
47	Providence & Fall River, ...	-	3,878 77	386 72	120 78	-	-	894 74
48	Shelburne Falls & Colrain, ...	-	3,910 89	665 49	288 04	-	-	-
49	Somerville, ...	-	-	-	-	-	-	-
50	Springfield, ...	4,545 69	177,962 51	36,062 00	11,795 85	-	-	2,582 21
51	Taunton & Pawtucket, ...	-	4,409 99	944 05	124 08	-	-	-
52	Templeton, ¹	114 96	662 06	183 45	141 22	-	-	145 84
53	Union, ...	1,536 95	58,463 75	17,465 38	3,015 89	-	-	2,073 54

54	Ware & Brookfield, ...	-	5,450 24	1,875 59	37 68	-	-	-	-
55	{ Warren, Brookfield & Spencer, ...	-	-	-	-	-	-	-	-
	{ Warren, Brookfield & Spencer (receiver), ...	-	14,274 86	1,035 22	28 14	-	-	-	-
56	Webster & Dudley, ...	-	-	-	-	-	-	-	-
57	West End, ...	-	-	-	-	-	-	-	-
58	Winnimmet, ...	-	-	-	-	-	-	-	-
59	Worcester Consolidated, ...	12,653 65	201,372 70	63,933 92	11,302 69	-	-	-	3,321 23
60	Worcester & Shrewsbury R.R., ...	-	-	-	-	-	-	-	-
61	Worcester & Shrewsbury St. Ry., ...	-	-	-	-	-	-	-	-
62	Worcester & Webster, ...	-	-	-	-	-	-	-	-
	Totals, ...	\$212,952 98	\$2,813,487 72	\$618,140 44	\$264,064 97	\$1,727 52	\$193 47	\$166,981 40	

¹ Operations to December 31, 1912, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

Tabulated Statements from Returns of Street Railway Companies — Continued.

OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1913 — Continued.										
RAILWAY COMPANIES.										
		43. — Maintenance of Power Equipment.	44. — Maintenance of Cars and Locomotives.	45. — Maintenance of Electric Equipment of Cars and Locomotives.	46. — Miscellaneous Equipment Expenses.	47. — Other Operations — Dr.	48. — Other Operations — Cr.	49. — General Expenses.		
1	Amesbury & Hampton, ¹	—	\$767 09	\$500 40	\$61 80	—	—	\$1,049 50		
2	Bay State,	\$73,657 48	355,592 56	300,253 81	53,922 70	\$1,709 93	—	354,163 09		
3	Berkshire,	25,721 92	55,080 07	49,422 10	1,745 36	—	\$4,947 93	47,996 59		
4	Blue Hill,	2,025 95	2,697 97	1,271 73	492 03	—	—	8,086 33		
5	Boston & Chelsea,	—	—	—	—	—	—	—		
6	Boston Elevated,	145,773 06	628,213 67	270,136 33	188,903 38	—	—	639,527 88		
7	Boston & Revere Electric,	—	—	—	—	—	—	—		
8	Boston & Worcester,	6,698 53	24,003 53	18,344 97	2,246 26	—	—	29,230 23		
9	Bristol & Norfolk,	—	1,659 48	115 60	—	—	—	304 01		
10	Brookton & Plymouth,	843 47	5,611 88	6,306 10	594 10	—	—	11,745 20		
11	Citizens' Electric, ¹	—	504 52	533 16	171 80	—	—	2,942 30		
12	Concord, Maynard & Hudson,	—	3,241 47	1,122 09	—	—	—	3,656 60		
13	Connecticut Valley,	—	9,520 17	6,852 23	530 00	—	—	10,689 84		
14	Conway Electric,	196 61	181 26	342 38	—	—	—	1,107 33		
15	{ Dedham & Franklin, Dedham & Franklin (receiver),	—	—	—	—	—	—	—		
		—	1,965 14	1,408 38	188 65	—	—	1,270 62		
16	East Middlesex,	—	—	—	—	—	—	—		
17	East Taunton,	—	2,541 77	1,355 37	896 65	—	—	646 23		

18	Fitchburg & Leominster, ...	700 95	12,609 02	9,308 57	634 74	-	-	15,519 10
19	Gardner, Westminster & Fitchburg, ...	-	2,511 04	2,306 62	105 12	-	-	2,761 11
20	Haverhill & Amesbury, ...	-	3,496 22	2,386 10	301 10	-	-	4,720 10
21	Haverhill & Plaistow, ...	-	407 70	259 40	31 70	-	-	541 80
22	Holyoke, ...	3,690 18	25,674 85	23,253 98	113 18	-	-	26,603 41
23	Interstate Consolidated, ...	257 64	-	-	-	-	-	8,278 29
24	Lawrence & Methuen, ...	-	3,656 96	3,350 76	200 10	-	-	3,366 20
25	Linwood, ...	-	460 44	383 69	-	-	-	362 76
26	Lowell & Fitchburg, ...	12 91	1,944 18	580 51	158 89	-	-	6,227 35
27	Lowell & Pelham, ...	-	492 50	446 50	29 10	-	-	448 60
28	Martha's Vineyard, ...	-	-	-	-	-	-	-
29	Massachusetts Northeastern, ...	-	11,145 75	8,267 80	2,168 17	-	-	8,619 30
30	{ Medford & Medway, ...	-	-	-	-	-	-	-
	{ Medford & Medway (receiver), ...	-	1,314 22	1,701 04	49 36	-	-	744 43
31	Middlesex & Boston, ...	1,835 31	33,906 75	27,449 60	3,053 96	-	-	25,474 16
32	Milford, Attleborough & Woonsocket, ...	588 21	3,887 04	2,450 56	69 20	-	-	3,440 77
33	Milford & Uxbridge, ...	3,219 37	4,402 08	3,760 36	1,769 84	-	-	8,358 08
34	Mount Tom, ...	-	-	-	-	-	-	-
35	Nahant & Lynn, ...	-	1,578 58	3,847 18	20 79	-	-	12,472 75
36	New Bedford & Onset, ...	1,801 70	6,756 41	5,596 16	430 86	-	-	4,449 64
37	Newtonville & Watertown, ...	-	-	-	-	-	-	-
38	Norfolk & Bristol, ...	388 26	4,930 11	7,509 42	1,294 71	-	-	2,867 95
39	Northampton, ...	214 19	10,276 27	4,071 76	766 20	-	-	11,885 32
40	North End, ...	-	-	-	-	-	-	-

¹ Operations to March 31, 1913, when consolidated with the Massachusetts Northeastern, April 2, 1913.

² Operations to February 28, 1913, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

Tabulated Statements from Returns of Street Railway Companies — Continued.

OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1913 — Continued.										
RAILWAY COMPANIES.		43. — Maintenance of Power Equipment.	44. — Maintenance of Cars and Locomotives.	45. — Maintenance of Electric Equipment of Cars and Locomotives.	46. — Miscellaneous Equipment Expenses.	47. — Other Operations — Dr.	48. — Other Operations — Cr.	49. — General Expenses.		
41	Northern Massachusetts, ...	—	\$4,856 80	\$4,469 33	\$1,219 05	—	—	\$4,125 93		
42	Norton & Taunton, ...	\$1,703 28	3,425 13	2,738 23	785 28	—	—	2,840 31		
43	Norwood, Canton & Sharon, ...	—	397 88	286 14	13 86	—	—	500 13		
44	Oak Bluffs, ...	—	299 49	61 97	—	—	—	250 00		
45	Plymouth & Sandwich, ...	—	746 67	521 00	—	—	—	595 92		
46	Point Shirley, ...	—	—	3,362 66	—	—	—	494 27		
47	Providence & Fall River, ...	—	4,959 90	4,433 99	801 88	—	—	2,747 92		
48	Shelburne Falls & Colrain, ...	609 64	437 41	510 58	—	—	—	4,029 18		
49	Somerville, ...	—	—	—	—	—	—	—		
50	Springfield, ...	21,223 64	105,941 06	92,079 10	7,605 51	—	—	52,159 55		
51	Taunton & Pawtucket, ...	1,727 99	2,789 45	5,585 42	507 22	—	—	3,745 36		
52	Templeton, ¹	—	2,594 09	2,037 78	110 53	—	—	1,933 42		
53	Union, ...	3,645 66	22,096 76	12,594 17	5,066 73	—	—	22,436 07		
54	Ware & Brookfield, ...	1,429 06	4,991 24	—	—	—	—	2,183 10		
55	{ Warren, Brookfield & Spencer, ...	—	—	—	—	—	—	—		
	{ Warren, Brookfield & Spencer (receiver), ...	1,305 00	3,177 94	606 26	43 40	—	—	3,408 91		

56	Webster & Dudley, ...	-	-	-	-	-	-	-	-	-
57	West End, ...	-	-	-	-	-	-	-	-	-
58	Winnimmet, ...	-	-	-	-	-	-	-	-	-
59	Worcester Consolidated, ...	36,307 56	98,073 01	75,301 96	5,891 92	-	-	-	-	69,169 35
60	Worcester & Shrewsbury R.R., ...	-	-	-	-	-	-	-	-	-
61	Worcester & Shrewsbury St. Ry., ...	-	-	-	-	-	-	-	-	-
62	Worcester & Webster, ...	-	-	-	-	-	-	-	-	-
	Totals, ...	\$335,581 57	\$1,475,857 53	\$969,562 25	\$232,993 13	\$1,709 93	\$4,949 93	\$1,420,625 73		

¹ Operations to December 31, 1912, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		50. — Other Op- erations — Dr.	51. — Other Op- erations — Cr.	52. — Injuries and Damages.	53. — Insurance.	54. — Stationery and Printing.	55. — Store and Stable Expenses.	56. — Rent of Trucks and Terminals.
1	Amsbury & Hampton, ¹	-	-	\$894 48	\$315 00	\$111 70	\$154 50	\$66 66
2	Bay State,	-	-	442,344 32	57,584 08	33,730 53	50,525 00	108,976 52
3	Berkshire,	-	-	39,046 62	8,949 36	2,006 79	5,167 86	319 48
4	Blue Hill,	-	-	2,660 95	1,572 06	304 71	201 20	294 32
5	Boston & Chelsea,	-	-	-	-	-	-	-
6	Boston Elevated,	-	-	849,625 95	112,552 81	41,344 74	109,474 63	12,436 13
7	Boston & Revere Electric,	-	-	-	-	-	-	-
8	Boston & Worcester,	-	-	20,137 17	9,892 71	2,447 62	2,097 50	835 72
9	Bristol & Norfolk,	-	-	40 00	319 59	546 82	-	248 69
10	Brookton & Plymouth,	-	-	6,105 19	2,708 70	565 89	237 07	-
11	Citizens' Electric, ¹	-	-	4,105 45	726 15	307 20	544 60	-
12	Concord, Maynard & Hudson,	-	-	899 48	2,536 18	71 07	-	750 00
13	Connecticut Valley,	-	-	3,482 14	6,432 67	-	-	-
14	Conway Electric,	-	-	-	144 01	65 86	-	-
15	{ Dedham & Franklin, Dedham & Franklin (receiver),	-	-	-	-	-	-	-
		-	-	-	353 50	434 48	39 13	-
16	East Middlesex,	-	-	-	-	-	-	-
17	East Taunton,	-	-	572 88	376 30	272 92	-	365 08

18	Fitchburg & Leominster.	-	8,242 20	2,408 70	531 52	1,600 45	-
19	Gardner, Westminster & Fitchburg. ¹	-	791 24	1,450 00	14 82	-	-
20	Haverhill & Amesbury. ¹	-	6,701 60	1,035 00	530 60	712 80	451 66
21	Haverhill & Plainfield. ¹	-	812 05	215 00	57 40	81 10	-
22	Holyoke.	-	30,715 47	18,190 77	507 80	831 19	397 49
23	Interstate Consolidated.	-	14,327 75	353 46	629 42	-	-
24	Lawrence & Methuen. ¹	-	4,041 03	908 95	360 90	509 20	564 85
25	Linwood.	-	-	-	237 00	-	1,524 16
26	Lowell & Fitchburg.	-	4 80	551 05	49 25	-	-
27	Lowell & Pelham. ¹	-	397 20	90 00	50 90	68 20	-
28	Martha's Vineyard.	-	-	-	-	-	-
29	Massachusetts Northeastern.	-	10,592 12	1,993 96	853 80	1,479 30	965 24
30	{ Medfield & Medway, Medfield & Medway (receiver).	-	85 45	148 20	49 13	-	901 00
31	Middlesex & Boston.	-	36,476 67	31,339 69	1,527 59	6,109 65	3,073 40
32	Milford, Attleborough & Woonsocket.	-	3,223 15	817 43	352 70	22 50	555 86
33	Milford & Uxbridge.	-	25,804 89	2,965 00	1,006 71	-	-
34	Mount Tom.	-	-	-	-	-	-
35	Nahant & Lynn.	-	82 76	1,600 08	197 17	-	-
36	New Bedford & Onset.	-	3,739 29	2,412 30	237 78	-	-
37	Newtonville & Watertown.	-	-	-	-	-	-
38	Norfolk & Bristol.	-	1,447 91	1,923 76	288 76	-	668 86
39	Northampton.	-	10,456 84	5,948 00	401 19	390 39	143 53
40	North End.	-	-	-	-	-	-

¹ Operations to March 31, 1913, when consolidated with the Massachusetts Northeastern April 2, 1913.² Operations to February 28, 1913, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		50. — Other Op- erations — Dr.	51. — Other Op- erations — Cr.	52. — Injuries and Damages.	53. — Insurance.	54. — Stationery and Printing.	55. — Store and Stable Expenses.	56. — Rent of Tracks and Terminals.
41	Northern Massachusetts, ...	—	—	\$1,887 95	\$3,380 00	\$49 44	—	\$87 00
42	Norton & Taunton, ...	—	—	176 31	1,350 25	56 12	—	2,145 19
43	Norwood, Canton & Sharon, ...	—	—	—	287 76	50 00	—	—
44	Oak Bluffs, ...	—	—	—	138 52	168 89	—	5 00
45	Plymouth & Sandwich, ...	—	—	—	225 57	151 22	—	—
46	Point Shirley, ...	—	—	21 25	283 70	7 50	—	—
47	Providence & Fall River, ...	—	—	715 78	1,980 00	111 56	—	—
48	Shelburne Falls & Colrain, ...	—	—	79 00	1,679 32	236 55	—	—
49	Somerville, ...	—	—	—	—	—	—	—
50	Springfield, ...	—	—	107,426 81	10,227 20	4,156 98	\$8,044 58	65 60
51	Taunton & Pawtucket, ...	—	—	352 15	1,801 69	143 07	—	2,445 26
52	Templeton, ¹	—	—	580 87	750 00	—	—	—
53	Union, ...	—	—	26,965 79	10,575 68	847 67	4,352 96	17,124 10
54	Ware & Brookfield, ...	—	—	—	1,832 12	—	—	—
55	{ Warren, Brookfield & Spencer, Warren, Brookfield & Spencer (receiver), ...	—	—	—	—	—	—	—
				60 00	1,231 76	78 70	—	—

56	Weber & Dudley,	.	.	.	.	-	-	-	-	-	-
57	West End,	.	.	.	.	-	-	-	-	-	-
58	Winnistimet,	.	.	.	.	-	-	-	-	-	-
59	Worcester Consolidated,	.	.	.	.	-	-	-	-	-	568 51
60	Worcester & Shrewsbury R.R.,	.	.	.	.	-	-	-	-	-	-
61	Worcester & Shrewsbury St. Ry.,	.	.	.	.	-	-	-	-	-	-
62	Worcester & Webster,	.	.	.	.	-	-	-	-	-	-
	Totals,	.	.	.	.	-	\$1,797,403 47	\$332,268 42	\$101,786 21	\$201,740 68	\$155,989 31

¹ Operations to December 31, 1912, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

Tabulated Statements from Returns of Street Railway Companies — Continued.

		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		RAILWAY COMPANIES.						
		57. — Rent of Equipment.	58. — Traffic Expenses.	59. — Superintendence of Transportation.	60. — Power Plant Employees.	61. — Substation Employees.	62. — Fuel for Power.	63. — Other Power Supplies and Expenses.
1	Amesbury & Hampton, ¹	-	\$299 40	\$808 61	-	-	-	-
2	Bay State,	\$5,816 31	63,692 20	113,710 94	\$167,868 41	\$15,954 95	\$525,837 26	\$45,618 66
3	Berkshire,	2,857 31	2,488 90	17,144 21	37,863 09	7,844 45	146,428 11	4,123 31
4	Blue Hill,	320 81	120 28	2,228 98	3,778 98	-	7,491 63	604 95
5	Boston & Chelsea,	-	-	-	-	-	-	-
6	Boston Elevated,	18,635 55	16,084 01	326,296 45	198,581 63	25,179 80	818,677 27	104,023 27
7	Boston & Revere Electric,	-	-	-	-	-	-	-
8	Boston & Worcester,	-	7,785 28	6,796 01	14,974 00	2,787 93	55,827 08	2,661 50
9	Bristol & Norfolk,	-	-	1,020 00	-	-	-	-
10	Brookton & Plymouth,	183 00	2,358 99	1,927 08	5,445 67	647 64	8,039 93	718 21
11	Citizens' Electric, ¹	1,069 45	341 72	2,636 12	-	1,163 00	-	108 63
12	Concord, Maynard & Hudson,	84 00	1,566 87	912 50	3,736 60	-	7,842 21	1,120 44
13	Connecticut Valley,	-	5,266 33	2,943 18	4,104 30	-	2,196 87	-
14	Conway Electric,	-	-	832 00	1,487 50	-	304 05	38 54
15	{ Dedham & Franklin, Dedham & Franklin (receiver),	-	11 75	351 97	-	-	-	-
16	East Middlesex,	-	-	-	-	-	-	-
17	East Taunton,	1,069 71	-	-	-	-	-	-

18	Fitchburg & Leominster, ...	-	4,078 66	5,172 05	10,333 43	-	29,444 98	1,772 74
19	Gardner, Westminster & Fitchburg, ...	1,227 35	1,180 86	695 86	2,689 54	-	5,377 37	369 45
20	Haverhill & Amesbury, ...	-	1,694 50	3,321 30	-	-	-	-
21	Haverhill & Plattsburgh, ...	-	140 00	430 60	-	-	-	-
22	Holyoke, ...	108 68	253 69	1,292 20	18,542 14	-	49,397 00	2,385 81
23	Interstate Consolidated, ...	20,159 27	188 54	4,988 15	-	2,063 40	-	27 48
24	Lawrence & Methuen, ...	-	578 00	2,163 00	-	-	-	-
25	Linwood, ...	-	-	-	-	-	-	-
26	Lowell & Fitchburg, ...	-	28 32	900 00	-	1,460 42	-	31 75
27	Lowell & Pelham, ...	-	114 48	306 00	-	-	-	-
28	Martha's Vineyard, ...	-	-	-	-	-	-	-
29	Massachusetts Northeastern, ...	379 80	1,873 64	6,363 62	-	2,397 82	-	138 63
30	Medfield & Medway, ...	-	-	-	-	-	-	-
	Medfield & Medway (receiver), ...	-	9 25	351 97	-	-	-	-
31	Middlesex & Boston, ...	-	13,675 30	13,196 47	5,322 85	-	18,688 18	944 63
32	Millford, Attleborough & Woonsocket, ...	1,489 85	145 57	2,279 42	4,435 25	-	15,336 40	706 78
33	Millford & Uxbridge, ...	-	797 05	2,587 64	9,114 24	-	27,497 83	1,297 98
34	Mount Tom, ...	-	-	-	-	-	-	-
35	Nahant & Lynn, ...	-	1,027 42	-	-	-	-	-
36	New Bedford & Onset, ...	845 95	909 79	1,779 28	6,631 81	-	16,430 71	2,313 84
37	Newtonville & Watertown, ...	-	-	-	-	-	-	-
38	Norfolk & Bristol, ...	-	-	-	3,999 81	-	10,752 11	132 55
39	Northampton, ...	-	132 00	-	7,331 31	-	15,669 09	1,049 50
40	North End, ...	-	-	-	-	-	-	-

¹ Operations to March 31, 1912, when consolidated with the Massachusetts Northeastern April 2, 1913.

² Operations to February 28, 1913, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		57. — Rent of Equipment.	58. — Traffic Expenses.	59. — Superin- tendence of Transportation.	60. — Power Plant Employees.	61. — Sub-sta- tion Employees.	62. — Fuel for Power.	63. — Other Power Supplies and Expenses.
41	Northern Massachusetts, ...	\$1,024 13	\$2,513 08	\$1,813 02	\$1,658 67	-	\$3,146 88	\$301 99
42	Norton & Taunton, ...	-	-	91 25	3,548 50	-	9,102 49	191 82
43	Norwood, Canton & Sharon, ...	-	-	-	-	-	-	-
44	Oak Bluffs, ...	144 00	-	-	-	-	-	-
45	Plymouth & Sandwich, ...	-	-	-	-	-	-	-
46	Point Shirley, ...	-	-	-	-	-	1,360 30	205 75
47	Providence & Fall River, ...	312 96	-	-	-	-	-	-
48	Shelburne Falls & Colrain, ...	-	-	-	1,324 00	-	890 93	-
49	Somerville, ...	-	-	-	-	-	-	-
50	Springfield, ...	7,387 99	6,260 36	26,984 89	26,229 19	-	143,811 06	5,322 96
51	Taunton & Pawtucket, ...	-	-	-	3,812 96	-	9,835 80	315 11
52	Templeton, ¹	217 37	503 94	270 83	1,014 54	-	2,341 77	383 37
53	Union, ...	9,480 82	2,070 93	18,448 58	14,852 96	-	40,522 71	4,642 93
54	Ware & Brookfield, ...	-	-	-	3,987 07	-	5,374 41	-
55	{ Warren, Brookfield & Spencer, ...	-	-	-	-	-	-	-
	{ Warren, Brookfield & Spencer (receiver), ...	-	484 04	-	3,443 23	-	6,074 46	184 85

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEARS ENDING JUNE 30, 1913 — Continued.						
		64. — Power Purchased.	65. — Power Exchanged — Balance.	66. — Other Operations — Dr.	67. — Other Operations — Cr.	68. — Conductors, Motormen and Trainmen.	69. — Miscellaneous Transportation Expenses.	70. — Total Operating Expenses.
1	Amesbury & Hampton, ¹	\$5,672 80	-	-	-	\$3,935 20	\$995 09	\$17,437 80
2	Bay State,	1,856 02	\$1,549 18	\$4,127 75	-	1,931,613 98	489,505 42	6,047,906 62
3	Berkshire,	5,000 00	-	-	\$47,002 35	179,388 75	43,421 37	846,093 17
4	Blue Hill,	2,727 36	-	-	-	17,500 07	2,191 48	65,352 02
5	Boston & Chelsea,	-	-	-	-	-	-	-
6	Boston Elevated,	1,015 30	14,097 38*	-	-	3,500,663 91	1,341,060 99	11,135,581 18
7	Boston & Revere Electric,	-	-	-	-	-	-	-
8	Boston & Worcester,	815 04	-	-	-	79,885 98	50,018 92	417,847 22
9	Bristol & Norfolk,	4,546 74	-	-	-	3,441 35	22 50	14,262 90
10	Brockton & Plymouth,	322 50	-	-	-	23,686 82	3,414 37	89,375 87
11	Citizens' Electric, ¹	14,346 94	-	-	-	14,677 42	2,785 95	51,500 92
12	Concord, Maynard & Hudson,	-	-	-	-	11,489 03	720 77	49,947 35
13	Connecticut Valley,	44,834 56	-	2,600 95	-	38,850 96	1,230 22	156,298 23
14	Conway Electric,	-	-	-	-	1,910 45	65 00	7,418 30
15	Dedham & Franklin, { Dedham & Franklin (receiver),	-	-	-	-	-	-	-
		6,502 94				5,684 10	2,114 28	21,897 13
16	East Middlesex,	-	-	-	-	-	-	-
17	East Taunton,	7,970 14	-	-	-	8,903 66	-	31,393 34

18	Fitchburg & Leominster, ...	-	-	-	61,121 25	11,778 32	208,763 78 ¹
19	Gardner, Westminster & Fitchburg, ...	-	-	-	12,854 18	299 78	38,722 90
20	Haverhill & Amesbury, ...	-	-	-	19,230 95	4,726 14	92,789 27
21	Haverhill & Plattsburgh, ...	-	-	-	2,092 10	521 20	9,336 62
22	Holyoke, ...	-	-	-	137,916 79	28,043 81	434,099 86
23	Interstate Consolidated, ...	-	-	-	42,374 13	2,797 41	152,165 21
24	Lawrence & Methuen, ...	-	-	-	12,297 08	3,246 83	63,804 97
25	Linwood, ...	-	-	-	6,317 66	-	12,822 61
26	Lowell & Fitchburg, ...	-	-	-	7,919 15	1,269 16	37,940 21
27	Lowell & Pulham, ...	-	-	-	1,752 40	463 12	8,942 93
28	Martha's Vineyard, ...	-	-	-	-	-	-
29	Massachusetts Northeastern, ...	-	-	-	35,927 12	8,122 08	175,000 03
30	Medford & Medway, ...	-	-	-	-	-	-
	Medford & Medway (receiver), ...	-	-	-	5,456 40	2,807 50	20,767 76
31	Middlesex & Boston, ...	-	-	-	182,291 69	50,406 84	662,857 30
32	Millford, Attleborough & Woonsocket, ...	-	-	-	19,018 16	3,182 61	74,395 76
33	Millford & Uxbridge, ...	-	-	-	39,123 89	7,210 91	155,998 47
34	Mount Tom, ...	-	-	-	-	-	-
35	Nahant & Lynn, ...	-	-	-	10,975 26	649 12	43,167 01
36	New Bedford & Onset, ...	-	-	-	22,182 29	10,050 91	107,901 03
37	Newtonville & Watertown, ...	-	-	-	-	-	-
38	Norfolk & Bristol, ...	-	-	-	22,388 10	3,526 51	74,856 99
39	Northampton, ...	-	-	-	37,980 90	6,890 25	144,579 46
40	North End, ...	-	-	-	-	-	-

¹ Operations to March 31, 1913, when consolidated with the Massachusetts Northeastern April 2, 1913.² Operations to February 28, 1913, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

• Credit.

Tabulated Statements from Returns of Street Railway Companies — Continued.

	RAILWAY COMPANIES.	OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		64. — Power Purchased.	65. — Power Exchanged — Balance.	66. — Other Operations — Dr.	67. — Other Operations — Cr.	68. — Conductions, Motormen and Trainmen.	69. — Miscellaneous Transportation Expenses.	70. — Total Operating Expenses.
41	Northern Massachusetts, ...	\$22,213 77	-	-	-	\$36,363 46	\$915 20	\$59,693 35
42	Norton & Taunton, ...	-	-	-	-	12,607 58	2,660 41	51,028 56
43	Norwood, Canton & Sharon, ...	3,648 85	-	-	-	4,166 36	181 15	9,914 62
44	Oak Bluffs, ...	1,665 00	-	-	-	1,785 47	-	5,764 04
45	Plymouth & Sandwich, ...	2,282 82	-	-	-	2,254 96	10 80	7,587 38
46	Point Shirley, ...	113 65	-	-	-	3,567 15	169 30	9,645 93
47	Providence & Fall River, ...	14,505 08	-	-	-	9,737 08	851 12	46,428 22
48	Shelburne Falls & Colrain, ...	-	-	-	-	3,844 42	1,140 73	19,646 18
49	Somerville, ...	-	-	-	-	-	-	-
50	Springfield, ...	57,508 43	-	-	-	510,696 55	66,780 33	1,492,870 05
51	Taunton & Pawtucket, ...	-	-	-	-	9,275 81	905 31	48,720 72
52	Templeton, ...	6,624 62	-	-	-	7,861 92	169 93	28,641 49
53	Union, ...	22,042 20	-	-	-	177,593 51	55,447 81	553,673 05
54	Ware & Brookfield, ...	-	-	-	-	9,817 09	2,738 34	39,115 94
55	{ Warren, Brookfield & Spencer, ... Warren, Brookfield & Spencer (receiver), ...	- -	- -	- -	- -	- 12,467 55	- -	- 48,503 42

56	Webster & Dudley, ...	-	-	-	-	-	-	-	-	-	-	-
57	West End, ...	-	-	-	-	-	-	-	-	-	-	-
58	Winimmet, ...	-	-	-	-	-	-	-	-	-	-	-
59	Worcester Consolidated, ...	51,039 78	-	-	-	-	-	-	-	-	-	-
60	Worcester & Shrewsbury R.R., ...	-	-	-	-	-	-	-	-	-	-	-
61	Worcester & Shrewsbury St. Ry., ...	-	-	-	-	-	-	-	-	-	-	-
62	Worcester & Webster, ...	-	-	-	-	-	-	-	-	-	-	-
	Totals, ...	\$588,392 98	\$12,548 20*	\$6,728 70	\$47,002 35	\$7,510,926 26	\$2,285,978 90	70,971 56	518,046 07	1,807,207 03	-	-

* Operations to December 31, 1912, when consolidated with the Athol & Orange (name changed to Northern Massachusetts).

* Credit.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1913.					
		71. — Operating Revenue.	72. — Operating Expenses.	73. — Percentage of Operating Expenses to Operating Revenue.	74. — Net Operating Revenue.	75. — Gross Income from Lease of Road.	76. — Total
							77. — Salaries and Maintenance of Organization.
1	Amesbury & Hampton, ...	\$18,324 97	\$17,437 80	95.16	\$887 17	-	\$887 17
2	Bay State, ...	9,206,403 48	6,047,906 63	65.69	3,158,496 86	-	3,158,496 86
3	Berkshire, ...	962,723 44	846,093 17	87.88	116,630 27	-	116,630 27
4	Blue Hill, ...	94,615 23	65,352 02	69.07	29,263 21	-	29,263 21
5	Boston & Chelsea, ...	-	-	-	-	\$7,560 00	7,560 00
6	Boston Elevated, ...	16,808,908 95	11,135,531 18	66.25	5,673,327 77	-	5,673,327 77
7	Boston & Revere Electric, ...	-	-	-	-	5,939 97	5,939 97
8	Boston & Worcester, ...	663,366 50	417,847 22	62.99	245,519 28	-	245,519 28
9	Bristol & Norfolk, ...	14,435 41	14,262 90	99.49	172 51	-	172 51
10	Brockton & Plymouth, ...	121,915 95	89,375 87	73.31	32,540 08	-	32,540 08
11	Citizens' Electric, ...	84,197 03	51,500 92	61.17	32,696 11	-	32,696 11
12	Concord, Maynard & Hudson, ...	73,551 25	49,947 35	67.91	23,603 90	-	23,603 90
13	Connecticut Valley, ...	237,050 67	156,298 23	65.94	80,752 44	-	80,752 44
14	Conway Electric, ...	11,630 41	7,418 30	63.78	4,212 11	-	4,212 11
15	Dedham & Franklin, ...	-	-	-	-	-	-
	{ Dedham & Franklin (receiver), ...	23,567 66	21,897 13	92.91	1,670 53	-	1,670 53
16	East Middlesex, ...	-	-	-	-	30,643 30	30,643 30
17	East Taunton, ...	47,980 22	31,393 34	65.43	16,586 88	-	16,586 88
							643 30

18	Fitchburg & Leominster.	330,011 26	208,763 78	65.24	111,247 48	-	111,247 48
19	Gardner, Westminster & Fitchburg.	54,694 39	38,722 90	70.80	15,971 49	-	15,971 49
20	Haverhill & Amesbury.	137,144 51	92,789 27	67.66	44,355 24	-	44,355 24
21	Haverhill & Plaistow.	16,401 97	9,336 63	56.92	7,065 35	-	7,065 35
22	Holyoke.	616,545 45	434,099 86	70.40	182,445 59	-	182,445 59
23	Interstate Consolidated.	194,339 24	152,165 21	78.30	42,174 13	-	42,174 13
24	Lawrence & Methuen.	82,002 94	63,804 97	77.81	18,197 97	-	18,197 97
25	Linwood.	18,193 15	12,822 61	70.48	5,370 54	-	5,370 54
26	Lowell & Fitchburg.	57,275 10	37,640 21	65.71	19,634 89	-	19,634 89
27	Lowell & Pelham.	8,035 53	8,342 93	103.82	307 40d	-	307 40d
28	Martha's Vineyard.	-	-	-	-	460 00	460 00
29	Massachusetts Northeastern.	216,607 68	175,600 03	81.07	41,007 65	-	41,007 65
30	Medfield & Medway.	-	-	-	-	-	-
	Medfield & Medway (receiver).	18,814 85	20,787 76	110.37	1,952 91d	-	1,952 91d
31	Middlesex & Boston.	940,490 73	662,857 30	70.48	277,633 43	-	277,633 43
32	Millford, Attleborough & Woonsocket.	115,692 48	74,395 76	64.30	41,296 72	-	41,296 72
33	Millford & Uxbridge.	223,336 89	155,698 47	69.71	67,638 42	-	67,638 42
34	Mount Tom.	-	-	-	-	6,000 00	6,000 00
35	Nahant & Lynn.	69,586 40	43,167 01	62.03	26,419 39	-	26,419 39
36	New Bedford & Onset.	153,059 79	107,901 03	70.49	45,158 76	-	45,158 76
37	Newtonville & Watertown.	-	-	-	-	8,281 32	8,281 32
38	Norfolk & Bristol.	96,007 97	74,856 99	77.96	21,150 98	-	21,150 98
39	Northampton.	210,588 91	144,579 46	68.66	66,009 45	-	66,009 45
40	North End.	-	-	-	-	8,000 00	8,000 00
							62 25

d Deficit.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		71. — Operating Revenues.	72. — Operating Expenses.	73. — Percentage of Operating Expenses to Operating Revenues.	74. — Net Operating Revenues.	75. — Gross Income from Lease of Road.	76. — Total.	77. — Salaries and Maintenance of Organization.
41	Northern Massachusetts.	\$127,183 88	\$39,683 85	70.51	\$87,500 98	—	\$87,500 98	—
42	Norton & Taunton.	65,163 30	51,028 56	78.30	14,134 74	—	14,134 74	—
43	Norwood, Canton & Sharon.	11,213 82	9,914 62	88.41	1,299 20	—	1,299 20	—
44	Oak Bluffs.	6,202 18	5,764 64	92.94	437 54	—	437 54	—
45	Plymouth & Sandwich.	9,980 64	7,587 38	76.02	2,393 26	—	2,393 26	—
46	Point Shirley.	7,460 45	9,645 93	129.47	2,185 48d	—	2,185 48d	—
47	Providence & Fall River.	52,189 98	46,428 23	88.96	5,761 70	—	5,761 70	—
48	Shelburne Falls & Colrain.	29,622 84	19,646 18	66.32	9,976 66	—	9,976 66	—
49	Somerville.	—	—	—	—	\$9,180 00	9,180 00	—
50	Springfield.	2,089,515 00	1,492,870 05	71.45	596,644 95	—	596,644 95	—
51	Taunton & Pawtucket.	50,799 43	43,720 72	95.90	2,078 71	—	2,078 71	—
52	Templeton.	39,158 81	28,641 49	73.15	10,517 32	—	10,517 32	—
53	Union.	969,724 20	553,673 05	57.69	406,061 15	—	406,061 15	—
54	Ware & Brookfield.	33,932 70	39,115 94	116.27	5,183 24d	—	5,183 24d	—
55	Warren, Brookfield & Spencer.	—	—	—	—	—	—	—
	Warren, Brookfield & Spencer (receiver).	52,790 83	48,508 42	91.87	4,287 41	—	4,287 41	—

Tabulated Statements from Returns of Street Railway Companies — Continued.

EXHIBIT FOR THE YEAR ENDING JUNE 30, 1913 — Continued.								
RAILWAY COMPANIES.		79. — Operating Income.	79. — Miscellaneous Income.	80. — Gross Income.	81. — Taxes.	82. — Interest on Funded Debt.	83. — Interest on Unfunded Debt.	84. — Rents of Leased Lines.
1	Amsbury & Hampton,	\$387 17	\$495 91	\$1,383 08	\$456 11	\$3,750 00	\$5,175 00	—
2	Bay State,	3,153,496 86	194,243 39	3,352,740 25	609,027 33	1,004,583 06	53,069 15	\$207,972 41
3	Berkshire,	116,630 27	2,947 20	119,577 47	45,732 16	79,000 00	43,217 82	42,300 00
4	Blue Hill,	29,263 21	—	29,263 21	3,210 00	12,500 00	8,545 45	—
5	Boston & Chelsea,	7,260 00	—	7,260 00	—	—	—	—
6	Boston Elevated,	5,673,327 77	159,419 33	5,832,747 15	1,128,021 51	1,650,416 95	207,700 00	1,458,677 16
7	Boston & Revere Electric,	5,939 97	50 47	5,990 44	939 97	2,500 00	—	—
8	Boston & Worcester,	245,519 28	5,571 43	251,090 71	47,971 20	104,770 00	19,471 31	—
9	Bristol & Norfolk,	172 51	57 35	229 86	254 30	3,466 53	—	—
10	Brockton & Plymouth,	32,540 08	187 74	32,727 82	5,516 41	11,700 00	1,171 60	—
11	Citizens' Electric,	32,696 11	159 76	32,855 87	2,121 92	8,625 00	2,677 50	—
12	Concord, Maynard & Hudson,	23,603 90	—	23,603 90	3,012 61	11,500 00	1,506 80	—
13	Connecticut Valley,	80,752 44	—	80,752 44	9,669 09	29,000 00	7,800 23	—
14	Conway Electric,	4,212 11	—	4,212 11	403 05	4,660 00	1,760 86	—
15	Dedham & Franklin, { Dedham & Franklin (receiver),	—	—	—	—	—	—	—
		1,670 53	—	1,670 53	202 65	—	43 21	—
16	East Middlesex,	30,000 00	81 13	30,081 13	—	—	—	—
17	East Taunton,	16,586 83	580 09	17,166 97	3,080 22	2,250 00	—	—

18	Fitchburg & Leominster, ...	111,247 48	619 04	111,866 52	17,670 30	19,250 00	37,923 30
19	Gardner, Westminster & Fitchburg, ...	15,971 49	-	15,971 49	2,533 32	6,166 67	212 31
20	Haverhill & Amesbury, ...	44,355 24	42 78	44,698 02	4,062 89	10,875 00	7,467 50
21	Haverhill & Plainfield, ...	7,065 35	-	7,065 35	520 00	1,125 00	-
22	Holyoke, ...	182,445 59	1,168 45	183,614 04	49,329 41	30,000 00	10,223 15
23	Interstate Consolidated, ...	42,174 13	1,005 99	43,180 12	10,316 48	-	14,516 68
24	Lawrence & Methuen, ...	18,197 97	110 46	18,308 43	2,417 78	4,687 50	3,037 50
25	Linwood, ...	5,370 54	-	5,370 54	643 75	-	280 00
26	Lowell & Fitchburg, ...	19,634 89	270 10	19,904 99	1,100 40	13,750 00	2 06
27	Lowell & Pelham, ...	307 40d	-	307 40d	674 87	1,500 00	2,385 00
28	Martha's Vineyard, ...	460 00	-	460 00	-	-	20 08
29	Massachusetts Northeastern, ...	41,007 65	16 65	41,024 30	4,580 62	19,062 50	16,832 50
30	{ Medfield & Medway, ... Medfield & Medway (recalver), ...	- 1,952 91d	- -	- 1,952 91d	- 128 31	- -	- 37 79
31	Middlesex & Boston, ...	277,633 43	745 00	278,378 43	35,109 03	89,610 00	71,573 25
32	Milford, Attleborough & Woonsocket, ...	41,296 72	929 26	42,225 98	3,994 56	15,000 00	279 16
33	Milford & Uxbridge, ...	67,638 42	-	67,638 42	12,262 03	25,000 00	589 52
34	Mount Tom, ...	6,000 00	124 95	6,124 95	-	-	-
35	Nahant & Lynn, ...	26,419 39	-	26,419 39	2,230 28	5,000 00	40 67
36	New Bedford & Onset, ...	45,158 76	-	45,158 76	8,383 57	14,000 00	-
37	Newtonville & Watertown, ...	7,829 05	55 58	7,884 63	1,257 90	-	2,684 25
38	Norfolk & Bristol, ...	21,150 98	463 46	21,614 44	3,305 53	10,000 00	-
39	Northampton, ...	66,009 45	138 03	66,147 48	17,392 75	-	8,150 29
40	North End, ...	7,937 75	20 70	7,958 45	-	3,750 00	-

d Deficit.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		78. — Operating Income.	79. — Miscellaneous Income.	80. — Gross Income.	81. — Taxes.	82. — Interest on Funded Debt.	83. — Interest on Unfunded Debt.	84. — Rents of Leased Lines.
41	Northern Massachusetts, ...	\$37,500 98	-	\$37,500 98	\$3,643 24	\$8,208 34	\$9,273 33	-
42	Norton & Taunton, ...	14,134 74	-	14,134 74	1,815 13	14,800 00	743 93	-
43	Norwood, Canton & Sharon, ...	1,399 20	-	1,399 20	246 89	-	-	-
44	Oak Bluffs, ...	437 54	-	437 54	243 84	-	459 11	\$460 00
45	Plymouth & Sandwich, ...	2,393 26	-	2,393 26	718 07	-	1,285 00	-
46	Point Shirley, ...	2,195 48d	\$0 81	2,194 67d	452 78	-	62 50	-
47	Providence & Fall River, ...	5,761 70	-	5,761 70	1,474 67	8,250 00	5,325 52	-
48	Shelburne Falls & Colrain, ...	9,976 66	-	9,976 66	935 53	4,785 00	39 00	-
49	Somerville, ...	9,180 00	-	9,180 00	-	-	-	-
50	Springfield, ...	596,644 95	2,174 88	598,819 83	170,698 22	96,250 00	57,544 86	-
51	Taunton & Pawtucket, ...	2,078 71	33 88	2,112 59	1,611 51	10,000 00	-	-
52	Templeton, ...	10,517 32	-	10,517 32	600 00	-	10,844 05	-
53	Union, ...	406,061 15	-	406,061 15	84,305 47	25,000 00	3,013 92	-
54	Ware & Brookfield, ...	5,183 24d	-	5,183 24d	668 14	6,750 00	-	-
55	Warren, Brookfield & Spencer, ...	-	-	-	-	-	-	-
55	Warren, Brookfield & Spencer (receiver), ...	4,287 41	-	4,287 41	1,637 42	-	389 58	-

56	Webster & Dudley, ...	14,500 00	-	14,500 00	-	1,500 00	-	10,500 00
57	West End, ...	906 50	1,395,521 89	1,396,428 39	-	-	-	-
58	Winnisimmet, ...	3,000 00	-	3,000 00	-	-	-	-
59	Worcester Consolidated, ...	866,047 62	3,790 56	869,838 18	193,806 02	210,640 00	104,769 58	27,250 00
60	Worcester & Shrewsbury R.R.	2,650 00	1,100 00	3,750 00	-	1,100 00	-	-
61	Worcester & Shrewsbury St. Ry., ...	1,000 00	-	1,000 00	-	-	-	-
62	Worcester & Webster, ...	10,500 00	-	10,500 00	-	7,500 00	-	-
	Totals, ...	\$12,503,802 08	\$1,772,126 32	\$14,275,928 40	\$2,500,439 29	\$3,594,271 55	\$721,944 30	\$1,753,159 57

d Deficit.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		REVENUE FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		78. — Operating Income.	79. — Miscellaneous Income.	80. — Gross Income.	81. — Taxes.	82. — Interest on Funded Debt.	83. — Interest on Unfunded Debt.	84. — Rents of Leased Lines.
41	Northern Massachusetts, ...	\$37,500 98	—	\$37,500 98	\$3,643 24	\$8,208 34	\$9,273 33	—
42	Norton & Taunton, ...	14,134 74	—	14,134 74	1,815 13	14,800 00	743 93	—
43	Norwood, Canton & Sharon, ...	1,399 20	—	1,399 20	246 89	—	—	—
44	Oak Bluffs, ...	437 54	—	437 54	243 84	—	459 11	\$460 00
45	Plymouth & Sandwich, ...	2,393 26	—	2,393 26	718 07	—	1,285 00	—
46	Point Shirley, ...	2,195 48 ^d	\$0 81	2,194 67 ^d	452 78	—	62 50	—
47	Providence & Fall River, ...	5,761 70	—	5,761 70	1,474 67	8,250 00	5,325 52	—
48	Shelburne Falls & Colrain, ...	9,976 66	—	9,976 66	935 58	4,785 00	39 00	—
49	Somerville, ...	9,180 00	—	9,180 00	—	—	—	—
50	Springfield, ...	596,644 95	2,174 88	598,819 83	170,696 23	96,250 00	57,544 86	—
51	Taunton & Pawtucket, ...	2,078 71	33 88	2,112 59	1,611 51	10,000 00	—	—
52	Templeton, ...	10,517 32	—	10,517 32	600 00	—	10,844 05	—
53	Union, ...	406,061 15	—	406,061 15	84,305 47	25,000 00	3,013 92	—
54	Ware & Brookfield, ...	5,183 24 ^d	—	5,183 24 ^d	668 14	6,750 00	—	—
55	{ Warren, Brookfield & Spencer, ...	—	—	—	—	—	—	—
	{ Warren, Brookfield & Spencer (receiver), ...	4,287 41	—	4,287 41	1,657 42	—	389 56	—

56	Webster & Dudley, ...	14,500 00	-	14,500 00	-	1,500 00	-	10,500 00
57	West End, ...	906 50	1,396,521 89	1,396,428 39	-	-	-	-
58	Winnisimmet, ...	3,000 00	-	3,000 00	-	-	-	-
59	Worcester Consolidated, ...	866,047 62	3,790 56	869,838 18	193,806 02	210,640 00	104,769 58	27,260 00
60	Worcester & Shrewsbury R.R.	2,650 00	1,100 00	3,750 00	-	1,100 00	-	-
61	Worcester & Shrewsbury St. Ry., ...	1,000 00	-	1,000 00	-	-	-	-
62	Worcester & Webster, ...	10,500 00	-	10,500 00	-	7,500 00	-	-
	Totals, ...	\$12,503,802 08	\$1,772,126 32	\$14,275,928 40	\$2,500,439 29	\$3,694,271 55	\$721,944 30	\$1,753,159 57

& Deficit.

Tabulated Statements from Returns of Street Railway Companies — Continued.

EXHIBIT FOR THE YEAR ENDING JUNE 30, 1913 — Continued.

RAILWAY COMPANIES.		85. — Other Deductions.	86. — Reserves and Special Charges.	87. — Total Deductions.	88. — Net Divisible Income.	89. — Dividends Declared.	90. — Percentage of Dividends Declared.	91. — Surplus for the Year.
1	Amesbury & Hampton,	—	\$1,619 04	\$11,000 15	\$9,617 07d	—	—	—
2	Bay State,	\$40,250 00	—	1,914,901 95	1,437,838 30	\$1,253,762 00	5½ and 6½	\$184,076 30
3	Berkshire,	1,597 92	—	211,897 90	92,320 43d	—	—	—
4	Blue Hill,	—	—	24,255 45	5,007 76	—	—	5,007 76
5	Boston & Chelsea,	—	—	—	7,260 00	7,260 00	6	—
6	Boston Elevated,	687,308 54	—	5,132,124 16	700,622 99	1,197,000 00	6	—
7	Boston & Revere Electric,	—	—	3,439 97	2,550 47	2,500 00	5	50 47
8	Boston & Worcester,	—	—	172,212 51	78,878 20	74,312 47	2½ and 6½	4,565 73
9	Bristol & Norfolk,	—	—	3,720 83	3,490 97d	—	—	—
10	Brockton & Plymouth,	—	—	18,388 01	14,339 81	6,600 00	6½	7,739 81
11	Citizens' Electric,	—	—	13,424 42	19,431 45	—	—	19,431 45
12	Concord, Maynard & Hudson,	—	—	16,019 41	7,584 49	—	—	7,584 49
13	Connecticut Valley,	—	—	46,269 32	34,483 12	19,682 50	2½ and 6½	14,800 62
14	Conway Electric,	—	—	6,813 91	2,601 80d	—	—	—
15	{ Dedham & Franklin, Dedham & Franklin (receiver),	—	—	—	—	—	—	—
		—	—	245 86	1,424 67	—	—	1,424 67
16	East Middlesex,	—	—	—	30,081 13	29,770 00	10	311 13
17	East Taunton,	—	—	5,310 22	11,856 75	5,500 00	5	6,356 75

18	Fitchburg & Leominster, ...	-	74,843 60	37,022 92	27,000 00	6	10,022 92
19	Gardner, Westminster & Fitchburg, ...	-	8,912 30	7,059 19	-	-	7,059 19
20	Haverhill & Amesbury, ...	-	22,405 39	21,992 63	-	-	21,992 63
21	Haverhill & Plaistow, ...	-	1,645 00	5,420 35	-	-	5,420 35
22	Holyoke, ...	-	95,552 56	88,061 48	85,888 00	8	2,173 48
23	Interstate Consolidated, ...	-	24,833 16	18,346 96	13,750 00	5	4,596 96
24	Lawrence & Methuen, ...	-	10,142 78	8,165 65	-	-	8,165 65
25	Linwood, ...	-	923 75	4,446 79	720 00	6	3,726 79
26	Lowell & Fitchburg, ...	-	14,852 46	5,052 53	-	-	5,052 53
27	Lowell & Pelham, ...	-	4,569 87	4,867 27d	-	-	-
28	Martha's Vineyard, ...	-	20 08	439 92	-	-	439 92
29	Massachusetts Northeastern, ...	-	40,475 62	548 68	-	-	548 68
30	Medfield & Medway, ...	-	-	-	-	-	-
	{ Medfield & Medway (receiver), ...	-	166 10	2,119 01d	-	-	-
31	Middlesex & Boston, ...	2,159 76	198,452 04	79,926 39	79,480 00	4	446 39
32	Millford, Attleborough & Woonsocket, ...	-	19,273 72	22,952 26	18,900 00	6	4,052 26
33	Millford & Uxbridge, ...	316 61	38,168 16	29,470 26	28,000 00	5 and 6*	1,470 26
34	Mount Tom, ...	-	-	6,124 95	6,000 00	6	124 95
35	Nahant & Lynn, ...	-	9,270 95	17,148 44	8,000 00	8	9,148 44

* Five and one-half per cent on \$30,517,200 common, and six per cent on \$2,085,600 preferred capital stock.

* Two and one-half per cent on \$2,025,000 common, and three per cent on \$394,000 and three per cent on \$397,200 preferred capital stock.

* Six per cent on \$110,000 preferred capital stock.

* Two and one-half per cent on \$499,200 common, and six per cent on \$120,000 preferred capital stock.

* Five per cent on \$440,000 common, and six per cent on \$100,000 preferred capital stock.

d Deficit.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		25. — Other Deductions.	26. — Reserves and Special Charges.	27. — Total Deductions.	28. — Net Divisible Income.	29. — Dividends Declared.	30. — Percentage of Dividends Declared.	31. — Surplus for the Year.
36	New Bedford & Onset, ...	\$6,000 00	—	\$28,383 57	\$16,775 19	\$16,500 00	3	\$275 19
37	Newtonville & Watertown, ...	—	—	3,942 15	3,942 48	3,600 00	7½	342 48
38	Norfolk & Bristol, ...	—	—	13,305 53	8,308 91	6,000 00	3	2,308 91
39	Northampton, ...	—	—	25,543 04	40,604 44	38,500 00	5½	2,104 44
40	North End, ...	—	—	3,750 00	4,208 45	4,125 00	3½	83 45
41	Northern Massachusetts, ...	—	—	21,124 91	16,376 07	13,235 00	3, 2½ and 1½	3,141 07
42	Norton & Taunton, ...	—	—	17,359 06	3,224 32d	—	—	—
43	Norwood, Canton & Sharon, ...	—	—	246 89	1,052 31	—	—	1,052 31
44	Oak Bluffs, ...	—	—	1,162 95	725 41d	—	—	—
45	Plymouth & Sandwich, ...	—	—	2,003 07	390 19	—	—	390 19
46	Point Shirley, ...	—	—	515 28	2,709 95d	—	—	—
47	Providence & Fall River, ...	—	—	15,050 19	9,288 49d	—	—	—
48	Shelburne Falls & Colrain, ...	—	\$320 00	6,079 58	3,897 08	2,500 00	5	1,397 08
49	Somerville, ...	—	—	—	9,180 00	9,180 00	6	—
50	Springfield, ...	—	—	326,493 08	272,326 75	259,567 00	7	12,759 75
51	Taunton & Pawtucket, ...	—	—	11,611 51	9,498 92d	—	—	—
52	Templeton, ...	—	—	11,444 05	926 73d	—	—	—
53	Union, ...	8,876 32	—	121,195 71	284,865 44	130,000 00	8	154,865 44

54	Ware & Brookfield, ...	-	7,418 14	12,001 88 ^d	-	-	-
55	{ Warren, Brookfield & Spencer, ...	-	-	-	-	-	-
	{ Warren, Brookfield & Spencer (receiver), ...	-	2,046 98	2,240 43	-	-	2,240 43
56	Webster & Dudley, ...	-	12,000 00	2,500 00	2,500 00	5	-
57	West End, ...	-	-	1,396,428 39	1,395,410 50	7 and 8 ^a	1,017 89
58	Winnlimmet, ...	-	-	3,000 00	3,000 00	6	-
59	Worcester Consolidated, ...	51,375 00	587,940 60	281,997 58	281,160 00	5 [†]	837 58
60	Worcester & Shrewsbury R.R., ...	-	1,100 00	2,650 00	1,324 87	3 ^{†b}	1,325 13
61	Worcester & Shrewsbury St. Ry., ...	-	-	1,000 00	1,000 00	5	-
62	Worcester & Webster, ...	3,000 00	10,500 00	-	-	-	-
	Totals, ...	\$797,884 15	\$9,374,637 90	\$4,901,290 50	\$5,031,727 34	5.17	\$519,931 92

¹ Three per cent on \$74,500 and two and one-half per cent on \$350,000 common, ^a Eight per cent on \$6,400,000 preferred, and three and one-half per cent on and one and one-half per cent on \$150,000 preferred capital stock. ^b \$12,510,160 and three and one-half per cent on \$12,730,160 common capital stock.

^d Deficit.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1913 — Continued.						
		92. — Deficit for the Year.	93. — Surplus June 30, 1912.	94. — Deficit June 30, 1912.	95. — Credits.	96. — Debits.	97. — Surplus June 30, 1913.	98. — Deficit June 30, 1913.
1	Amesbury & Hampton,	\$9,617 07	—	\$90,259 29	\$99,881 36	\$5 00	—	—
2	Bay State,	—	\$471,340 66	—	170,770 44	255,857 31	\$570,330 09	—
3	Berkshire,	92,320 43	8,122 15	—	—	50,148 17	—	\$134,346 45
4	Blue Hill,	—	—	54,875 57	—	—	—	49,867 81
5	Boston & Chelsea,	—	—	—	—	—	—	—
6	Boston Elevated,	496,377 01	3,326,550 64	—	196,470 00	80,000 00	2,946,643 63	—
7	Boston & Revere Electric,	—	10,124 71	—	—	—	10,175 18	—
8	Boston & Worcester,	—	89,077 00	—	320 00	—	93,962 78	—
9	Bristol & Norfolk,	3,490 97	—	40,436 42	—	—	—	43,927 39
10	Brockton & Plymouth,	—	38,117 74	—	—	—	45,867 55	—
11	Citizens' Electric,	—	49,594 16	—	—	69,025 61	—	—
12	Concord, Maynard & Hudson,	—	43,425 58	—	1,070 30	11,057 22	41,023 15	—
13	Connecticut Valley,	—	18,020 91	—	—	22,694 47	10,127 06	—
14	Conway Electric,	2,601 80	—	15,944 74	—	—	—	18,546 54
15	{ Dedham & Franklin, Dedham & Franklin (receiver),	—	—	22,925 62	—	—	—	22,925 62
		—	—	315 31	—	—	1,109 86	—
16	East Middlesex,	—	—	8,447 82	—	—	—	8,136 69
17	East Taunton,	—	36,451 02	—	—	334 80	42,472 97	—

18	Fitchburg & Leominster,	.	.	.	24,178 33	-	478 30	-	34,674 55	-
19	Gardner, Westminster & Fitchburg,	.	.	.	21,515 04	-	-	28,574 23	-	-
20	Haverhill & Amesbury,	.	.	.	-	16,715 23	308 09	5,535 49	-	-
21	Haverhill & Plaislow,	.	.	.	27,540 40	-	-	32,960 75	-	-
22	Holyoke, .	.	.	.	114,935 17	-	227,660 00	27,660 00	317,108 65*	-
23	Interstate Consolidated,	.	.	.	8,232 60	-	47 29	5,970 86	6,905 99	-
24	Lawrence & Methuen,	.	.	.	-	18,454 04	10,288 39	-	-	-
25	Linwood, .	.	.	.	6,389 02	-	-	1,989 12	8,126 69	-
26	Lowell & Fitchburg,	.	.	.	-	21,662 00	99,409 79	-	82,800 32	-
27	Lowell & Pelham,	.	.	4,867 27	-	42,511 85	47,379 12	-	-	-
28	Martha's Vineyard,	.	.	.	540 00	-	-	-	979 92	-
29	Massachusetts Northeastern,	.	.	.	-	51,954 95	55,262 28	-	3,856 01	-
30	Medfield & Medway,	.	.	.	-	46,885 39	-	-	-	46,885 39
	Medfield & Medway (receiver),	.	.	.	132 62	-	-	-	-	1,986 39
31	Middlesex & Boston,	.	.	.	-	211,493 34	-	55,522 27	-	266,569 22
32	Millford, Attleborough & Woonsocket,	.	.	.	27,590 39	-	43 09	47 57	31,638 17	-
33	Millford & Uxbridge,	.	.	.	29,791 31	-	-	7,984 83	23,276 74	-
34	Mount Tom,	.	.	.	1,443 29	-	-	-	1,568 24	-
35	Nahant & Lynn,	.	.	.	34,975 47	-	537 00	9,025 93	35,634 98	-

* Includes \$367,480 premium on sale of preferred capital stock.

* Includes \$2,719,743.09 net premium on sales of capital stock and bonds.

* Includes \$1,000 premium on sale of bonds.

* Includes \$39,720 premium on sale of preferred capital stock.

* Includes \$115 premium on sale of preferred capital stock.

* Includes \$238,500 premium on sales of capital stock and bonds.

Tabulated Statements from Returns of Street Railway Companies — Continued.

		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1913 — Concluded.						
		RAILWAY COMPANIES.						
		92. — Deficit for the Year.	93. — Surplus June 30, 1912.	94. — Deficit June 30, 1912.	95. — Credits.	96. — Debits.	97. — Surplus June 30, 1913.	98. — Deficit June 30, 1913.
36	New Bedford & Onset,	-	\$57,501 46	-	\$10 00	\$1,741 92	\$56,044 73 ¹	-
37	Newtonville & Watertown,	-	4,257 76	-	-	-	4,600 24	-
38	Norfolk & Bristol,	-	88,783 34	-	-	9,600 00	81,492 25	-
39	Northampton,	-	12,647 43	-	-	-	14,751 87 ²	-
40	North End,	-	-	\$18,551 53	-	-	-	\$18,468 08
41	Northern Massachusetts,	-	7,457 02	-	27,522 39	8,655 17	29,465 31	-
42	Norton & Taunton,	\$3,224 32	-	49,735 85	24 07	1,455 11	-	54,391 21
43	Norwood, Canton & Sharon,	-	103,402 93	-	-	137 16	104,318 08	-
44	Oak Bluffs,	725 41	-	317 14	78 66	-	-	963 89
45	Plymouth & Sandwich,	-	4,253 51	-	-	-	4,643 70	-
46	Point Shirley,	2,709 95	-	2,260 00	600 00	-	-	4,369 95
47	Providence & Fall River,	9,288 49	-	45,025 81	-	-	-	54,314 30
48	Shelburne Falls & Colrain,	-	16,031 48	-	-	-	17,428 56	-
49	Somerville,	-	-	-	-	-	-	-
50	Springfield,	-	263,427 90	-	825 31	8,222 30	268,790 66 ³	-
51	Taunton & Pawtucket,	9,498 92	-	46,940 20	-	62 57	-	56,501 69
52	Templeton,	926 73	-	132,753 86	135,892 59	2,212 00	-	-
53	Union,	-	787,218 54	-	263,952 10	565,072 61	640,963 47 ⁴	-

54	Ware & Brookfield, ...	12,601 38	-	55,924 51	-	-	-	88,525 89
55	{ Warren, Brookfield & Spencer, ...	-	15,116 92	-	-	-	15,116 92	-
	{ Warren, Brookfield & Spencer (receiver), ...	-	393 29	-	4,378 80	3,861 51	3,151 01	-
56	Webster & Dudley, ...	-	-	22,860 08	-	512 11	-	23,372 19
57	West End, ...	-	2,325,615 69	-	126,922 38	-	2,453,555 96*	-
58	Winnimmet, ...	-	124 85	-	-	5 53	119 32	-
59	Worcester Consolidated, ...	-	369,281 47	-	2,223 31	13,806 05	358,536 31*	-
60	Worcester & Shrewsbury R.R., ...	-	64,694 59	-	-	1,700 00	64,319 72	-
61	Worcester & Shrewsbury St. Ry., ...	-	22 05	-	-	-	22 05	-
62	Worcester & Webster, ...	-	-	72,672 58	-	-	-	72,672 58
	Totals, ...	\$650,368 76	\$8,508,318 44	\$1,089,923 13	\$1,472,350 06	\$1,281,487 67	\$8,425,592 14	\$946,771 28

* Includes \$17,675 premium on sale of bonds.

† Includes \$10,000 premium on sale of capital stock.

‡ Includes \$184,614.89 premium on sales of capital stock and bonds.

* Includes \$549,670 premium on sales of capital stock and bonds.

† Includes \$2,375,846.82 premium on sales of capital stock and bonds.

‡ Includes \$332,432.92 premium on sales of capital stock and bonds.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		DESCRIPTION OF RAILWAY (LENGTH IN MILES).						
		99. — Railway Line Owned.	100. — Second Main Trunk Owned.	101. — Total Main Trunk Owned.	102. — Sidings, Switches, etc., Owned.	103. — Total Trunk Owned.	104. — Leased Main Trunk and Trackage Rights.	105. — Total Main Trunk Operated.
1	Amesbury & Hampton,*	8.340	—	8.340	.410	8.750	—	8.340
2	Bay State,	705.350	153.480	858.830	32.720	891.550	78.220	910.000
3	Berkshire,	110.814	1.050	111.864	5.284	117.148	27.408	139.272
4	Blue Hill,	15.360	2.950	18.310	1.180	19.490	.220	18.530
5	Boston & Chelsea,	2.176	2.176	4.352	.027	4.379	—	—
6	Boston Elevated,	17.894	17.165	35.059	14.065	49.144	413.876	445.158
7	Boston & Revere Electric,	1.856	1.855	3.711	.066	3.807	—	—
8	Boston & Worcester,	48.816	31.225	80.041	2.753	82.794	.592	80.633
9	Bristol & Norfolk,	6.195	—	6.195	.123	6.318	.378	6.573
10	Brockton & Plymouth,	22.050	—	22.050	2.320	24.370	.430	22.480
11	Citizens' Electric,*	16.860	—	16.860	.980	17.840	—	17.430
12	Concord, Maynard & Hudson,	17.815	—	17.815	.780	18.595	.350	18.165
13	Connecticut Valley,	44.867	—	44.867	2.334	47.201	—	44.867
14	Conway Electric,	5.910	—	5.910	.580	6.500	—	5.910
15	{ Dedham & Franklin, Dedham & Franklin (receiver),	— 9.079	— —	— 9.079	— .371	— 9.450	— —	— 9.079
16	East Middlesex,	16.010	2.580	18.590	.800	19.390	—	—
17	East Taunton,	10.524	—	10.524	.176	10.700	.724	11.248

18	Fitchburg & Leominster,	33.686	5.345	39.031	1.819	40.850	-	39.031
19	Gardner, Westminster & Fitchburg,*	15.420	-	15.420	.640	16.060	-	15.420
20	Haverhill & Amesbury,*	25.900	-	25.900	1.500	27.400	-	26.920
21	Haverhill & Plaistow,*	2.680	-	2.680	.080	2.760	-	2.680
22	Holyoke,	56.048	8.131	64.179	4.796	68.975	.900	65.079
23	Interstate Consolidated,	22.440	1.660	24.100	1.790	25.890	-	24.100
24	Lawrence & Methuen,*	12.520	-	12.520	.440	12.960	-	12.740
25	Linwood,	.750	-	.750	.040	.790	1.480 ¹	2.230
26	Lowell & Fitchburg,	17.630	-	17.630	.370	18.000	-	17.630
27	Lowell & Pelham,*	3.170	-	3.170	.150	3.320	-	3.170
28	Martha's Vineyard,	1.100	-	1.100	.025	1.125	-	-
29	Massachusetts Northeastern,	117.960	1.430	119.390	6.320	125.700	2.470	121.850
30	{ Medfield & Medway,	-	-	-	-	-	-	-
	{ Medfield & Medway (receiver),	11.009	-	11.009	.241	11.250	-	11.009
31	Middlesex & Boston,	103.815	16.428	120.243	8.017	128.260	1.986	122.229
32	Millford, Attleborough & Woonsocket,	28.230	.310	28.540	.930	29.470	-	28.540
33	Millford & Uxbridge,	33.689	.991	34.680	1.226	35.906	.025	34.705
34	Mount Tom,	.900	-	.900	.100	1.000	-	-
35	Nahant & Lynn,	3.660	2.350	6.010	.350	6.360	-	6.010
36	New Bedford & Onset,	36.964	3.654	40.618	2.986	43.604	-	40.618
37	Newtonville & Watertown,	4.331	-	4.331	.357	4.688	-	-
38	Norfolk & Bristol,	20.641	-	20.641	1.082	21.723	.293	20.934
39	Northampton,	24.369	-	24.369	3.139	27.508	-	24.369
40	North End,	4.995	-	4.995	.135	5.130	-	-

¹ Owned by private parties.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		DESCRIPTION OF RAILWAY (LENGTH IN MILES) — Concluded.						
		99. — Railway Line Owned.	100. — Second Main Track Owned.	101. — Total Main Track Owned.	102. — Sidings, Switches, etc., Owned.	103. — Total Track Owned.	104. — Leased Main Track and Trackage Rights.	105. — Total Main Track Operated.
41	Northern Massachusetts,	44.900	—	44.900	2.670	47.570	—	44.900
42	Norton & Taunton,	29.220	—	29.220	.853	30.073	.907	19.831
43	Norwood, Canton & Sharon,	6.073	—	6.073	.209	6.282	—	6.073
44	Oak Bluffs,	5.975	—	5.975	.500	6.475	1.100	5.270
45	Plymouth & Sandwich,	6.146	—	6.146	.213	6.359	—	6.146
46	Point Shirley,	1.200	—	1.200	—	1.200	—	1.200
47	Providence & Fall River,	10.091	—	10.091	.620	10.711	—	10.091
48	Shelburne Falls & Colrain,	6.950	—	6.950	.480	7.430	—	6.950
49	Somerville,	3.890	3.890	7.780	.253	8.033	—	—
50	Springfield,	139.530	31.820	171.350	11.380	182.730	—	171.350
51	Taunton & Pawtucket,	15.978	.470	16.448	1.175	17.623	1.164	17.612
52	Templeton,*	22.760	—	22.760	1.160	23.920	—	22.760
53	Union,	36.740	14.080	50.820	3.380	54.200	8.590	59.410
54	Ware & Brookfield,	11.710	—	11.710	.410	12.120	—	11.710
55	Warren, Brookfield & Spencer, Warren, Brookfield & Spencer (receiver),	— 19.607	— —	— 19.607	— .491	— 20.098	— —	— 19.607

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		DESCRIPTION OF EQUIPMENT.						
		106. — Box Passenger Cars.	107. — Open Passenger Cars.	108. — Total Passenger Cars.	109. — Other Service Cars.	110. — Snow Plows and Sweepers.	111. — Other Vehicles.	112. — Electric Motors.
1	Amsbury & Hampton,*	—	9	9	1	1	—	30
2	Bay State,	976	1,122	2,098	166	268	233	5,306
3	Berkshire,	81	71	152	17	10	19	547
4	Blue Hill,	7	12	19	3	2	—	40
5	Boston & Chelsea,	—	—	—	—	—	—	—
6	Boston Elevated,	2,149	1,492	3,641	142	289	1,077	7,453
7	Boston & Revere Electric,	—	—	—	—	—	—	—
8	Boston & Worcester,	47	29	76	13	9	4	290
9	Bristol & Norfolk,	3	3	6	1	1	—	12
10	Brockton & Plymouth,	11	15	26	4	4	1	73
11	Citizens' Electric,*	7	15	22	4	3	5	60
12	Concord, Maynard & Hudson,	8	7	15	1	2	1	62
13	Connecticut Valley,	22	19	41	8	3	—	142
14	Conway Electric,	3	1	4	10	1	—	14
15	{ Dedham & Franklin, Dedham & Franklin (receiver),	—	—	—	—	—	—	—
		5	3	8	1	2	1	12
16	East Middlesex,	—	—	—	—	—	—	—
17	East Taunton,	4	4	8	1	2	—	83

18	Fitchburg & Leominster, ...	29	24	53	9	4	26	166
19	Gardner, Westminster & Fitchburg,*	10	14	24	2	2	-	66
20	Haverhill & Amesbury,*	9	11	20	5	3	2	56
21	Haverhill & Plaistow,*	-	-	-	-	-	-	-
22	Holyoke, ...	53	75	128	27	10	8	285
23	Interstate Consolidated, ...	-	-	-	2	-	-	8
24	Lawrence & Methuen,*	5	7	12	-	2	-	28
25	Linwood, ...	6	-	6	-	-	-	20
26	Lowell & Fitchburg, ...	7	-	7	7	1	-	24
27	Lowell & Pelham,*	4	5	9	-	1	-	20
28	Martha's Vineyard, ...	-	-	-	-	-	-	-
29	Massachusetts Northeastern, ...	49	86	135	18	17	9	410
30	{ Medfield & Medway, ...	-	-	-	-	-	-	-
	{ Medfield & Medway (receiver), ...	2	3	5	-	2	-	10
31	Middlesex & Boston, ...	116	148	264	14	26	35	617
32	Millford, Attleborough & Woonsocket, ...	13	15	28	6	5	-	100
33	Millford & Uxbridge, ...	27	20	47	4	8	2	134
34	Mount Tom, ...	-	-	-	-	-	-	-
35	Nahant & Lynn, ...	5	12	17	1	1	-	32
36	New Bedford & Onset, ...	11	17	28	4	3	-	104
37	Newtonville & Watertown, ...	-	-	-	-	-	-	-
38	Norfolk & Bristol, ...	11	12	23	2	3	1	56
39	Northampton, ...	23	26	49	13	3	8	88
40	North End, ...	-	-	-	-	-	-	-

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		DESCRIPTION OF EQUIPMENT — Concluded.						
		106. — Box Passenger Cars.	107. — Open Passenger Cars.	108. — Total Passenger Cars.	109. — Other Service Cars.	110. — Snow Plows and Sweepers.	111. — Other Vehicles.	112. — Electric Motors.
41	Northern Massachusetts, ...	32	35	67	11	3	-	180
42	Norton & Taunton, ...	10	8	18	2	3	-	52
43	Norwood, Canton & Sharon, ...	4	3	7	-	1	-	16
44	Oak Bluffs, ...	-	6	6	2	-	1	8
45	Plymouth & Sandwich, ...	2	3	5	-	-	-	10
46	Point Shirley, ...	2	-	2	-	-	-	2
47	Providence & Fall River, ...	8	10	18	3	3	1	58
48	Shelburne Falls & Colrain, ...	4	2	6	9	1	-	14
49	Somerville, ...	-	-	-	-	-	-	-
50	Springfield, ...	184	183	367	42	37	19	1,094
51	Taunton & Pawtucket, ...	6	8	14	-	1	-	42
52	Templeton,*	8	6	14	3	2	-	32
53	Union, ...	94	121	215	18	13	10	422
54	Ware & Brookfield, ...	6	14	20	-	1	2	28
55	Warren, Brookfield & Spencer, ...	7	19	17	1	2	1	27
	Warren, Brookfield & Spencer (receiver), ...	3	-	3	-	-	-	8

56	Webster & Dudley, ...	-	-	-	-	-	-	-	-	-	-	-
57	West End, ...	-	-	-	-	-	-	-	-	-	-	-
58	Winnimmet, ...	-	-	-	-	-	-	-	-	-	-	-
59	Worcester Consolidated, ...	246	259	505	46	39	41	1,624	-	-	-	-
60	Worcester & Shrewsbury R.R., ...	-	-	-	-	-	-	-	-	-	-	-
61	Worcester & Shrewsbury St. Ry., ...	-	-	-	-	-	-	-	-	-	-	-
62	Worcester & Webster, ...	-	-	-	-	-	-	-	-	-	-	-
	Totals, ¹	4,276	3,578	8,154	617	780	1,500	19,623	-	-	-	-

¹ Not including companies marked *; these companies having been consolidated during the year.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		VOLUME OF TRAFFIC.						
		113. — Passenger Car Miles.	114. — Other Revenue Car Miles.	115. — Total Revenue Car Miles.	116. — Passenger Car Hours.	117. — Other Revenue Car Hours.	118. — Total Revenue Car Hours.	119. — Number of Employees.
1	Amesbury & Hampton, ...	93,200	—	93,200	7,809	—	7,809	—
2	Bay State, ...	30,030,806	297,791	30,328,597	3,572,721	56,749	3,629,470	6,665
3	Berkshire, ...	3,527,459	87,629	3,615,088	304,251	9,658	313,909	631
4	Blue Hill, ...	363,141	—	363,141	35,269	—	35,269	76
5	Boston & Chelsea, ...	—	—	—	—	—	—	—
6	Boston Elevated, ...	57,504,571	279,748	57,784,319	5,329,400	30,307	5,359,707	9,802
7	Boston & Revere Electric, ...	—	—	—	—	—	—	—
8	Boston & Worcester, ...	2,008,108	55,512	2,063,620	120,236	5,614	125,850	378
9	Bristol & Norfolk, ...	78,840	—	78,840	6,286	—	6,286	12
10	Brockton & Plymouth, ...	442,942	21,562	464,504	42,591	3,413	46,004	74
11	Citizens' Electric, ...	254,300	1,100	255,400	27,792	250	28,042	—
12	Concord, Maynard & Hudson, ...	268,388	—	268,388	22,257	—	22,257	62
13	Connecticut Valley, ...	775,604	45,312	820,916	61,722	3,651	65,373	123
14	Conway Electric, ...	21,096	19,254	40,350	2,344	2,139	4,483	9
15	Dedham & Franklin, ...	—	—	—	—	—	—	—
15	{ Dedham & Franklin (receiver), ...	127,349	—	127,349	14,210	—	14,210	16
16	East Middlesex, ...	—	—	—	—	—	—	—
17	East Taunton, ...	163,275	—	163,275	9,127	—	9,127	15

18	Fitchburg & Leominster,	1,116,540	16,677	1,138,217	120,420	3,723	124,143	284
19	Gardner, Westminster & Fitchburg,*	229,044	7,800	236,844	22,904	780	23,684	54
20	Haverhill & Amesbury,	439,400	4,300	443,700	37,197	360	37,557	-
21	Haverhill & Plaistow,	48,300	-	48,300	4,047	-	4,047	-
22	Holyoke,	2,056,268	48,256	2,104,514	208,945	5,816	214,781	405
23	Interstate Consolidated,	752,408	9,520	761,928	69,382	2,398	71,680	149
24	Lawrence & Methuen,	301,400	-	301,400	22,123	-	22,123	-
25	Linwood,	60,035	-	60,035	6,936	-	6,936	10
26	Lowell & Fitchburg,	228,574	332	228,906	16,500	-	16,500	24
27	Lowell & Pelham,	42,900	-	42,900	3,160	-	3,160	-
28	Martha's Vineyard,	-	-	-	-	-	-	-
29	Massachusetts Northeastern,	834,000	1,300	835,300	68,791	210	69,001	538
30	Medford & Medway,	-	-	-	-	-	-	-
	Medford & Medway (receiver),	148,209	-	148,209	13,641	-	13,641	18
31	Middlesex & Boston,	3,654,323	14,261	3,668,584	374,001	2,742	376,743	562
32	Millford, Attleborough & Woonsocket,	430,146	9,571	439,717	35,828	1,121	36,949	105
33	Millford & Uxbridge,	757,213	1,500	758,713	161,383	850	162,233	150
34	Mount Tom,	-	-	-	-	-	-	-
35	Nahant & Lynn,	145,146	-	145,146	14,590	-	14,590	63
36	New Bedford & Onset,	503,388	19,669	523,057	38,562	3,544	42,106	135
37	Newtonville & Watertown,	-	-	-	-	-	-	-
38	Norfolk & Bristol,	458,577	543	459,120	45,158	-	45,158	56
39	Northampton,	776,886	-	776,886	72,082	-	72,082	155
40	North End,	-	-	-	-	-	-	-

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		VOLUME OF TRAFFIC — Continued.						
		112. — Pas- senger Car Miles.	114. — Other Revenue Car Miles.	115. — Total Revenue Car Miles.	116. — Pas- senger Car Hours.	117. — Other Revenue Car Hours.	118. — Total Revenue Car Hours.	119. — Number of Employees.
41	Northern Massachusetts,	448,203	29,937	478,140	41,212	2,994	44,206	264
42	Norton & Taunton,	360,385	—	360,385	31,070	—	31,070	35
43	Norwood, Canton & Sharon,	68,496	65	68,561	9,156	—	9,156	8
44	Oak Bluffs,	14,945	—	14,945	3,091	—	3,091	18
45	Plymouth & Sandwich,	43,482	—	43,482	3,642	—	3,642	7
46	Point Shirley,	30,654	—	30,654	6,570	—	6,570	5
47	Providence & Fall River,	189,475	32,809	222,284	11,431	2,591	14,022	33
48	Shelburne Falls & Colrain,	63,663	—	63,663	6,968	—	6,968	18
49	Somerville,	—	—	—	—	—	—	—
50	Springfield,	7,488,926	85,088	7,584,014	758,316	11,879	770,195	1,042
51	Taunton & Pawtucket,	251,988	—	251,988	19,819	—	19,819	35
52	Templeton,*	129,578	7,600	137,178	12,968	760	13,718	96
53	Union,	2,659,230	44,969	2,704,199	311,528	10,227	321,755	538
54	Ware & Brookfield,	170,250	—	170,250	17,869	—	17,869	35
55	{ Warren, Brookfield & Spencer, Warren, Brookfield & Spencer (receiver),	271,993	—	271,993	26,179	—	29,179	34

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.			VOLUME OF TRAFFIC — Continued.			STOCKHOLDERS.		
			129. — Total Number of Passengers carried Paying Revenue. ¹	131. — Number of Free Transfers for Passengers Carried.	132. — Average Number of Revenue Passengers per Mile of Main Track Operated. ¹	133. — Total Number.	134. — In Massachusetts.	135. — Amount of Stock held in Massachusetts.
1	Amsbury & Hampton,*	.	363,532	26,468	43,589	4	3	\$300 00
2	Bay State,	.	181,280,062	22,917,709	199,209	520	513	23,351,100 00
3	Berkshire,	.	18,134,718	938,471	130,211	8	5	500 00
4	Blue Hill,	.	1,494,636	55,324	80,660	55	54	297,500 00
5	Boston & Chelsea,	.	—	—	—	101	79	99,150 00
6	Boston Elevated,	.	326,352,863	217,568,571	733,117	5,973	5,346	21,689,300 00
7	Boston & Revere Electric,	.	—	—	—	24	21	88,000 00
8	Boston & Worcester,	.	12,307,297	368,205	152,633	62	61	2,417,200 00
9	Bristol & Norfolk,	.	292,719	1,933	44,533	26	24	89,900 00
10	Brockton & Plymouth,	.	1,948,589	33,013	86,681	115	111	399,900 00
11	Citizens' Electric,*	.	1,760,785	26,215	101,020	1	—	—
12	Concord, Maynard & Hudson,	.	1,275,436	663	70,214	38	37	234,900 00
13	Connecticut Valley,	.	4,155,457	74,846	92,617	76	69	616,300 00
14	Conway Electric,	.	56,491	—	9,550	103	93	93,400 00
15	Dedham & Franklin, { Dedham & Franklin (reover), }	.	—	—	—	8	7	74,900 00
		.	448,272	—	49,374	—	—	—
16	East Middlesex,	.	—	—	—	120	109	261,700 00
17	East Taunton,	.	1,056,063	—	93,907	58	58	110,000 00

18	Fitchburg & Leominster, ...	6,187,723	1,126,198	158,534	133	125	440,500 00
19	Gardner, Westminster & Fitchburg,*	993,150	33,424	64,406	16	15	184,900 00
20	Haverhill & Amesbury,*	2,750,597	22,403	103,177	4	3	300 00
21	Haverhill & Plaistow,*	328,782	-	123,680	4	3	300 00
22	Holyoke, ...	11,934,073	1,222,121	183,378	282	227	964,200 00
23	Interstate Consolidated, ...	3,728,679	115,344	154,717	5	1	55,000 00
24	Lawrence & Methuen,*	1,639,069	-	127,870	4	3	300 00
25	Linwood, ...	353,583	-	158,557	16	16	12,000 00
26	Lowell & Fitchburg, ...	1,211,321	-	68,708	26	5	241,000 00
27	Lowell & Pelham,*	288,180	-	75,186	5	4	400 00
28	Martha's Vineyard, ...	-	-	-	6	6	8,000 00
29	Massachusetts Northeastern, ...	4,807,766	70,000	35,353	5	4	400 00
30	{ Medfield & Medway, ...	-	-	-	9	8	60,000 00
	{ Medfield & Medway (receiver), ...	873,040	-	33,885	-	-	-
31	Middlesex & Boston, ...	17,857,955	654,940	146,102	8	8	1,987,000 00
32	Millford, Attleborough & Woonsocket, ...	2,162,311	16,266	75,764	6	6	315,000 00
33	Millford & Uxbridge, ...	3,968,850	14,052	114,359	162	37	195,000 00
34	Mount Tom, ...	-	-	-	124	115	92,100 00
35	Nahant & Lynn, ...	1,010,495	112,625	168,135	35	35	100,000 00
36	New Bedford & Onset, ...	2,583,157	28,399	63,596	200	190	528,100 00
37	Newtonville & Watertown, ...	-	-	-	19	19	50,000 00
38	Norfolk & Bristol, ...	2,023,593	79,076	96,665	16	15	194,000 00
39	Northampton, ...	3,999,253	195,284	164,112	219	168	609,200 00
40	North End, ...	-	-	-	30	29	109,900 00

* Computed on the basis of five or six cent fares collected.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		VOLUME OF TRAFFIC — Concluded.			STOCKHOLDERS — Concluded.		
		129. — Total Number of Passengers carried Paying Revenue. ¹	131. — Number of Free Transfers for Passengers Carried.	132. — Average Number of Revenue Passengers per Mile of Main Track Operated. ¹	133. — Total Number.	134. — In Massachusetts.	135. — Amount of Stock held in Massachusetts.
41	Northern Massachusetts, ...	2,445,324	27,350	54,461	25	24	\$499,900 00
42	Norton & Taunton, ...	1,321,340	8,840	66,630	73	72	257,000 00
43	Norwood, Canton & Sharon, ...	225,859	—	37,189	6	5	52,100 00
44	Oak Bluffs, ...	123,601	—	23,453	6	6	60,000 00
45	Plymouth & Sandwich, ...	192,217	—	31,275	46	40	42,300 00
46	Point Shirley, ...	158,214	—	131,845	6	6	25,000 00
47	Providence & Fall River, ...	732,330	21,837	72,573	35	30	149,700 00
48	Shelburne Falls & Colrain, ...	242,930	—	34,953	35	28	47,300 00
49	Somerville, ...	—	—	—	5	5	153,000 00
50	Springfield, ...	40,326,614	6,706,091	235,346	29	26	3,707,000 00
51	Taunton & Pawtucket, ...	981,139	2,744	55,709	8	5	50,200 00
52	Templeton,*	687,054	306	30,187	43	41	71,900 00
53	Union, ...	18,404,656	4,206,762	309,700	364	332	1,468,600 00
54	Ware & Brookfield, ...	590,145	—	50,396	7	7	100,000 00
55	Warren, Brookfield & Spencer, ...	—	—	—	17	13	130,300 00
	Warren, Brookfield & Spencer (receiver), ...	877,594	—	44,760	—	—	—

56	Webster & Dudley, ...	-	-	-	-	-	10	3	300 00
57	West End, ...	-	-	-	-	-	8,690	7,617	17,474,800 00
58	Winnifimmet, ...	-	-	-	-	-	34	33	49,950 00
59	Worcester Consolidated, ...	52,644,767	11,324,796	196,326	10	10	6	10	5,112,000 00
60	Worcester & Shrewsbury R.R., ...	-	-	-	-	-	6	6	36,700 00
61	Worcester & Shrewsbury St. Ry., ...	-	-	-	-	-	6	6	20,000 00
62	Worcester & Webster, ...	-	-	-	-	-	8	4	400 00
	Totals, ...	738,522,280	268,090,175	253,044	18,014	15,879			\$85,071,700 00

¹ Computed on the basis of five or six cent fares collected.

Not including in columns 123, 124 and 125 the companies having been consolidated during the year.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		ACCIDENTS DURING THE YEAR ENDING JUNE 30, 1913.						131. — Total.	132. — Total during Preceding Year.
		126. — To Passengers.	127. — To Employees.	128. — To Other Persons.	129. — Fatal.	130. — Not Fatal.			
1	Amesbury & Hampton, ...	—	1	1	—	2	2	—	
2	Bay State, ...	1,764	198	417	21	2,358	2,379	2,054	
3	Berkshire, ...	28	19	12	7	52	59	69	
4	Blue Hill, ...	12	9	1	2	20	22	13	
5	Boston & Chelsea, ...	—	—	—	—	—	—	—	
6	Boston Elevated, ...	3,454	259	1,134	57	4,790	4,847	4,054	
7	Boston & Revere Electric, ...	—	—	—	—	—	—	—	
8	Boston & Worcester, ...	25	34	7	5	61	66	39	
9	Bristol & Norfolk, ...	2	—	—	—	2	2	2	
10	Brockton & Plymouth, ...	5	—	6	2	9	11	5	
11	Citizens' Electric, ...	5	2	2	—	9	9	2	
12	Concord, Maynard & Hudson, ...	—	—	7	3	4	7	5	
13	Connecticut Valley, ...	9	2	5	3	13	16	26	
14	Conway Electric, ...	—	—	—	—	—	—	—	
15	Dedham & Franklin, ...	—	—	—	—	—	—	—	
	Dedham & Franklin (receiver), ...	2	—	2	—	4	4	2	
16	East Middlesex, ...	—	—	—	—	—	—	—	
17	East Taunton, ...	—	—	—	—	—	—	—	

18	Fitchburg & Leominster, ...	12	1	4	1	16	17	22
19	Gardner, Westminster & Fitchburg, ...	6	-	-	-	6	6	3
20	Haverhill & Amesbury, ...	5	-	2	2	5	7	5
21	Haverhill & Plaistow, ...	2	-	1	-	3	3	-
22	Holyoke, ...	53	2	15	5	65	70	34
23	Interstate Consolidated, ...	35	-	13	2	46	48	70
24	Lawrence & Methuen, ...	6	-	1	-	7	7	11
25	Linwood, ...	-	-	-	-	-	-	-
26	Lowell & Fitchburg, ...	-	-	-	-	-	-	-
27	Lowell & Pelham, ...	-	-	-	-	-	-	1
28	Martha's Vineyard, ...	-	-	-	-	-	-	-
29	Massachusetts Northeastern, ...	2	2	5	2	7	9	81
30	Medfield & Medway, ...	-	-	-	-	-	-	-
	{ Medfield & Medway (receiver), ...	2	-	1	-	3	3	4
31	Middlesex & Boston, ...	03	42	35	-	139	139	136
32	Milford, Attleborough & Woonsocket, ...	4	1	1	-	6	6	7
33	Milford & Uxbridge, ...	4	-	2	-	6	6	9
34	Mount Tom, ...	-	-	-	-	-	-	-
35	Nahant & Lynn, ...	-	-	-	-	-	-	-
36	New Bedford & Onset, ...	8	-	-	-	8	8	6
37	Newtonville & Watertown, ...	-	-	-	-	-	-	-
38	Norfolk & Bristol, ...	2	-	5	-	7	7	7
39	Northampton, ...	5	4	-	-	9	9	2
40	North End, ...	-	-	-	-	-	-	-

Tabulated Statements from Returns of Street Railway Companies — Concluded.

RAILWAY COMPANIES.		ACCIDENTS DURING THE YEAR ENDING JUNE 30, 1913 — Concluded.						132. — Total during Preceding Year.
		130. — To Passengers.	137. — To Employees.	138. — To Other Persons.	139. — Fatal.	139. — Not Fatal.	131. — Total.	
41	Northern Massachusetts, ...	-	-	11	-	11	11	5
42	Norton & Taunton, ...	6	2	6	-	14	14	5
43	Norwood, Canton & Sharon, ...	-	-	-	-	-	-	-
44	Oak Bluffs, ...	-	-	-	-	-	-	-
45	Plymouth & Sandwich, ...	-	-	-	-	-	-	-
46	Point Shirley, ...	-	-	-	-	-	-	1
47	Providence & Fall River, ...	1	-	2	-	3	3	4
48	Shelburne Falls & Colrain, ...	-	-	-	-	-	-	1
49	Somerville, ...	-	-	-	-	-	-	-
50	Springfield, ...	341	48	129	10	508	518	327
51	Taunton & Pawtucket, ...	-	-	-	-	-	-	1
52	Templeton, ...	2	-	1	-	3	3	5
53	Union, ...	39	5	24	1	67	68	94
54	Ware & Brookfield, ...	-	-	-	-	-	-	-
55	Warren, Brookfield & Spencer, ...	-	-	-	-	-	-	-
	{ Warren, Brookfield & Spencer (receiver), ...	2	2	-	-	4	4	1

COMPARATIVE STATEMENTS

COMPILED FROM

Returns of Street Railway Companies.

COMPARISON OF STREET RAILWAY RETURNS FOR THE YEARS 1912 AND 1913.

MILEAGE, ASSETS, ETC.	1912.	1913.	Increase.	Decrease.
Description of Road Owned.	Miles.	Miles.	Miles.	Miles.
Length of railway line, ...	2,275.469	2,323.783	48.314	-
of second track, ...	468.673	508.417	39.744	-
<i>Total length of main line, ...</i>	<i>2,744.142</i>	<i>2,832.200</i>	<i>88.058</i>	<i>-</i>
Length of side track, ...	203.158	182.892	-	20.266
<i>Total reckoned as single track, ...</i>	<i>2,947.300</i>	<i>3,015.092</i>	<i>67.792</i>	<i>-</i>
<i>Total main track operated,¹</i>	<i>2,821.892</i>	<i>2,918.549</i>	<i>96.657</i>	<i>-</i>
in Massachusetts, ¹	2,765.871	2,808.771	44.400	-
Assets.				
Construction, ...	\$102,496,196 09	\$105,623,600 01	\$3,126,403 92	-
Equipment, ...	33,716,966 55	34,751,749 34	1,034,782 79	-
Land and buildings, ...	46,201,319 25	43,343,319 04	2,858,000 21	-
Other permanent property, ...	5,569,880 01	5,367,480 38	202,399 63	-
Cash and current assets, ...	7,939,172 35	10,796,468 67	2,856,296 32	-
Miscellaneous assets, ...	9,144,695 06	10,141,163 82	996,468 76	-
<i>Gross assets, ...</i>	<i>\$205,065,129 31</i>	<i>\$216,022,752 26</i>	<i>\$10,957,622 95</i>	<i>-</i>
Liabilities.				
Capital stock, common, ...	\$79,906,375 00	\$87,258,575 00	\$7,352,200 00	-
preferred, ...	9,212,600 00	10,025,800 00	813,200 00	-
<i>Total capital stock, ...</i>	<i>\$89,118,975 00</i>	<i>\$97,284,375 00</i>	<i>\$8,165,400 00</i>	<i>-</i>
Funded debt, ...	77,706,700 00	85,615,700 00	7,909,000 00	-
Real estate mortgages, ...	808,800 00	3,800 00	-	\$805,000 00
Current liabilities, ...	23,651,299 37	19,489,169 56	-	4,162,129 81
Accrued liabilities, ...	2,874,294 24	2,756,787 95	-	117,506 29
<i>Total indebtedness, ...</i>	<i>104,541,093 61</i>	<i>107,868,407 51</i>	<i>3,327,313 90</i>	<i>-</i>
<i>Gross liabilities, ...</i>	<i>\$193,660,068 61</i>	<i>\$205,149,782 51</i>	<i>\$11,489,713 90</i>	<i>-</i>
Profit and loss balance (surplus), ²	11,405,060 70	10,872,969 75	-	\$532,090 95
<i>Total as per balance sheet, ...</i>	<i>\$205,065,129 31</i>	<i>\$216,022,752 26</i>	<i>\$10,957,622 95</i>	<i>-</i>
Income.				
From passengers, ...	\$34,760,145 81	\$36,559,543 10	\$1,799,397 29	-
mails and merchandise, ...	385,382 80	558,359 28	172,976 48	-
tolls, advertising, etc., ...	934,708 88	1,007,790 74	73,081 86	-
<i>Total operating revenue, ...</i>	<i>\$36,080,236 99</i>	<i>\$38,125,693 12</i>	<i>\$2,045,456 13</i>	<i>-</i>
Rents from lease of railway, ...	116,321 73	116,314 59	-	\$107 14
Income from other sources, ...	2,218,298 46	1,772,126 32	-	446,172 14
<i>Total income, ...</i>	<i>\$38,414,857 18</i>	<i>\$40,014,034 03</i>	<i>\$1,599,176 85</i>	<i>-</i>

¹ Includes leased track and trackage rights.

² Includes "sinking and other reserve funds" which in 1912 was \$4,042,187.66 and in 1913 is \$3,394,148.89, and also "net premium on sales of capital stock and bonds."

1914.]

COMPARISON OF RETURNS.

COMPARISON OF STREET RAILWAY RETURNS FOR THE YEARS 1912
AND 1913 — Concluded.

EXPENDITURES, ETC.	1912.	1913.	Increase.	Decrease.
Expenditures.				
Operating expenses, ...	\$24,363,903 14	\$25,729,054 31	\$1,365,151 17	-
Taxes, ...	2,456,283 08	2,500,439 29	44,156 26	-
Interest on debt and loans, ...	4,062,643 04	4,316,215 85	253,572 81	-
Rents of leased railways, ...	1,737,685 17	1,763,189 57	15,474 40	-
Other deductions from income, ...	818,541 59	813,874 51	-	\$4,667 08
Dividends declared, ...	4,916,370 74	5,031,727 34	115,356 60	-
Total expenditures, ...	\$38,355,426 71	\$40,144,470 87	\$1,789,044 16	-
Condensed Exhibit for the Year.				
Total operating revenues, ...	\$36,080,236 99	\$38,125,698 12	\$2,045,456 13	-
Operating expenses, ...	24,363,903 14	25,729,054 31	1,365,151 17	-
Net operating revenue, ...	\$11,716,333 85	\$12,396,638 81	\$680,304 96	-
Income from all other sources, ...	2,334,620 19	1,888,340 91	-	\$446,279 28
Gross income less operating expenses, ...	14,050,954 04	14,284,979 72	234,025 68	-
Taxes, interest, rents and other deductions, ...	9,075,152 83	9,883,689 22	808,536 39	-
Net divisible income, ...	\$4,975,801 21	\$4,401,290 50	-	\$74,510 71
Amount of dividends declared, ...	4,916,370 74	5,031,727 34	\$115,356 60	-
Surplus for the year, ...	59,430 47	130,436 84	-	189,867 81
Percentage of dividends earned, ...	5.58	5.04	-	.54
of dividends declared, ...	5.52	5.17	-	.35
Volume of Traffic.				
Total revenue passengers carried, ¹	701,798,374	738,522,380	36,724,006	-
Average number per mile of main track operated, ¹	248,698	253,044	4,346	-
Total revenue car miles run, ...	125,078,724	130,588,851	5,510,127	-
Number of employees June 30, ...	23,290	24,136	846	-
Equipment.				
Passenger cars, box, ...	4,146	4,276	130	-
open, ...	3,868	3,878	20	-
Total passenger cars, ...	8,004	8,154	150	-
Other cars and vehicles, ...	2,929	2,897	-	32
Electric motors, ...	18,367	19,633	1,266	-
Amount of capital stock held in Massachusetts, ...	\$78,396,300 00	\$85,071,700 00	\$6,775,400 00	-
Total number of stockholders, ...	16,995	18,014	1,019	-
in Massachusetts, ...	14,949	15,879	930	-

^d Deficit.¹ Computed on the basis of five or six-cent fares collected.

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